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UNITED STATES ENVIRONMENTAL PROTECTION AGENCY
REGION IX

IN THE MATTER OF:)
)
)
)
Ecology Control Industries,) UNILATERAL ADMINISTRATIVE
)
Mr. Ronald Flury,) ORDER FOR THE PERFORMANCE
)
and) OF A REMOVAL ACTION
)
Montrose Chemical Corp. of California,)
)
Respondents) U.S. EPA REGION 9
) CERCLA DOCKET No. 9-2006-02
)
Proceeding Under Section 106(a))
of the Comprehensive Environmental)
Response, Compensation, and)
Liability Act of 1980,)
42 U.S.C. § 9606(a).)
)

1 **I. AUTHORITY**

2 1. This Order pertains to property located at 20846 Normandie Avenue, Los Angeles
3 County, California ("the Property"). The Property consists of the following parcel numbers:
4 7348-020-003, 7348-020-004, 7348-020-007 and 7348-020-008. This Order requires
5 Respondents to conduct Removal Actions described herein to abate an imminent and substantial
6 endangerment to the public health, welfare or the environment that may be presented by the
7 actual or threatened release of hazardous substances at or from the Property.

8 2. This Unilateral Administrative Order ("Order") is issued pursuant to the authority
9 vested in the President of the United States by Section 106(a) of the Comprehensive
10 Environmental Response, Compensation, and Liability Act of 1980, 42 U.S.C. § 9606(a), as
11 amended by the Superfund Amendments and Reauthorization Act of 1986, and the Small
12 Business Liability Relief and Brownfields Revitalization Act of 2002 ("CERCLA"). The
13 President delegated this authority to the Administrator of the United States Environmental
14 Protection Agency ("EPA" or "Agency") by Executive Order 12580, January 23, 1987, 52 Fed.
15 Reg. 2923, and further delegated it to the Assistant Administrator for Solid Waste and
16 Emergency Response and the Regional Administrators by EPA Delegation Nos. 14-14-A and 14-
17 14-B. This authority has been duly redelegated to the Branch Chief, Superfund Division, EPA
18 Region 9 ("Branch Chief"), by delegations dated September 29, 1997, and November 16, 2001.

19 **II. PARTIES BOUND**

20 3. This Order shall apply to and be binding on Respondents Ecology Control
21 Industries, Inc., Mr. Ronald J. Flury, and Montrose Chemical Corporation of California, Inc.
22 This Order shall be binding on Respondents and any agents, officers, employees, successors and

1 assigns thereof. Respondents are jointly and severally liable for carrying out all activities
2 required by this Order. Compliance or noncompliance by one or more Respondents with any
3 provision of this Order shall not excuse or justify noncompliance by any other Respondent.

4 4. No change in ownership or operational status will alter a Respondent's obligations
5 under this Order.

6 5. Notwithstanding the terms of any contract or agreement, Respondents are
7 responsible for compliance with this Order and for ensuring that all employees, contractors, and
8 agents comply with this Order. Respondents shall provide a copy of this Order to all contractors,
9 subcontractors, and consultants that are retained by them to perform the work required by this
10 Order within three (3) working days after the Effective Date of this Order or within three (3)
11 working days of retaining their services, whichever is later.

12 6. Respondents may not convey any title, easement, or other interest that they may have
13 in the Property, without a provision permitting the continuous implementation of the provisions
14 of this Order. If Respondents wish to transfer any title, easement, or other interest that they may
15 have in the Property, Respondents shall provide a copy of this Order to any subsequent owner(s)
16 or successor(s) before any ownership rights are transferred. In such case, Respondents shall
17 advise EPA as soon as practical prior to any anticipated transfer of interest.

18 **III. DEFINITIONS**

19 7. Unless otherwise expressly provided herein, the terms used in this Order that are
20 defined in CERCLA or in regulations promulgated under CERCLA shall have the meaning
21 assigned to them in CERCLA or in such regulations. Whenever the terms listed below are used
22 in this Order, or in the exhibits attached hereto and incorporated hereunder, the following

1 definitions shall apply:

2 "Days" shall mean consecutive calendar days unless expressly stated otherwise.

3 "Working days" shall mean consecutive calendar days other than a Saturday, Sunday, or federal
4 holiday. In computing any period of time under this Order where the last day would fall on a
5 Saturday, Sunday, or federal holiday, the period shall run until the close of business of the next
6 working day.

7 "CERCLA" shall mean the Comprehensive Environmental Response,
8 Compensation, and Liability Act of 1980, as amended by the Superfund Amendments and
9 Reauthorization Act of 1986 and by the Small Business Liability Relief and Brownfields
10 Revitalization Act of 2002, 42 U.S.C. § 9601 et seq.

11 "EPA" shall mean the United States Environmental Protection Agency and any
12 successor departments or agencies of the United States.

13 "National Contingency Plan" or "NCP" shall mean the National Oil and
14 Hazardous Substances Pollution Contingency Plan promulgated pursuant to Section 105 of
15 CERCLA, 42 U.S.C. § 9605, codified at 40 C.F.R. Part 300.

16 "Paragraph" shall mean a portion of this Order identified by an Arabic numeral.

17 "Property" shall mean that real property located at 20846 Normandie Avenue, Los
18 Angeles County, California. The Property consists of the following parcels: Los Angeles County
19 Tax Assessor Parcel Numbers 7348-020-003, 7348-020-004, 7348-020-007 and 7348-020-008.

20 "Removal Action Memorandum" or "Action Memorandum" shall mean the EPA
21 Region 9 Superfund decision document, dated November 2, 2005 and signed by Elizabeth J.
22 Adams, which selected CERCLA response actions for soil piles and excavations at the Property.
23 The Removal Action Memorandum is included in this Order as Attachment A.

1 “Response Actions” or “Removal Actions” shall be those specific work items or
2 tasks which Respondents are required to perform pursuant to this Order, including but not limited
3 to, the work items or tasks set out in Section IX of this Order.

4 “Section” shall mean a portion of this Order identified by a Roman numeral,
5 unless otherwise stated.

6 “State” shall mean the state of California, and all of its political subdivisions,
7 including but not limited to the Department of Toxic Substances Control (“DTSC”).

8 “Unilateral Order” or “Order” shall mean this Unilateral Administrative Order,
9 EPA docket number 9-2006-02, and any exhibits or attachments hereto.

10 “United States” shall mean the United States of America.

11 “Work” shall mean those response actions required by the EPA Region 9
12 CERCLA Removal Action Memorandum (dated November 2, 2005) and the actions required of
13 Respondents by this Order. A copy of the Removal Action Memorandum is included as
14 Attachment A to this Order.

15 IV. FINDINGS OF FACT

16 8. Montrose Chemical Corporation of California, Inc. (“Montrose”) manufactured the
17 pesticide dichlorodiphenyl-trichloroethane (DDT) at 20201 Normandie Avenue, Los Angeles
18 County, California (“the Montrose Plant Property”) from 1947 until the summer of 1982.
19 Montrose also conducted DDT grinding and DDT formulation activities at the Montrose Plant
20 Property. The Montrose Plant Property was the only location in California where technical grade
21 DDT was produced. The Montrose Plant Property was the only location in the Torrance,
22 California area where DDT grinding and DDT formulation were conducted.

1 9. During Montrose's operations at the Montrose Plant Property, DDT and other
2 hazardous substances, including but not limited to monochlorobenzene, were released into the
3 environment at and from the Montrose Plant Property.

4 10. EPA has determined that DDT is a probable human carcinogen. DDT also exhibits
5 non-cancer toxicity in the liver and nervous system. DDT is toxic to aquatic life and can cause
6 reproductive failure in birds.

7 11. During the period of Montrose's operations at the Montrose Plant Property, the
8 Montrose Plant Property was owned by Stauffer Chemical Company.

9 12. From at least 1954 until 1963, Stauffer Chemical Company owned and operated a
10 plant that produced technical grade benzene hexachloride ("BHC") and lindane ("gamma BHC")
11 at the Montrose Plant Property. The Stauffer BHC/lindane operations were the only such
12 operations in the Torrance area.

13 13. BHC occurs as a number of isomers including alpha-BHC, beta-BHC and gamma-
14 BHC.

15 14. Lindane is produced by isolating the gamma-BHC isomer from the other BHC
16 isomers present in technical grade BHC.

17 15. EPA has determined that alpha-BHC and technical grade BHC are probable human
18 carcinogens.

19 16. EPA has determined that beta-BHC is a possible human carcinogen.

20 17. EPA has determined that exposure to gamma-BHC can result in liver and kidney
21 toxicity.

22 18. EPA has determined that PCBs and chlordane are probable human carcinogens.

23 19. From information presently available to EPA, EPA does not believe that the PCBs

1 and chlordane found in soil samples from the 20846 Normandie Avenue Property originated with
2 releases from the Montrose Plant Property.

3 20. EPA placed the Montrose Chemical Superfund Site on the CERCLA National
4 Priorities List in 1989.

5 21. Since the beginning of Montrose operations at the Montrose Plant Property until
6 the early 1970's, a historical stormwater pathway existed that originated at the Montrose Plant
7 Property. Stormwater runoff from the Montrose Plant Property flowed into a drainage ditch
8 south of the Montrose Plant Property along Normandie Avenue. The stormwater pathway
9 continued under Normandie Avenue and along a portion of 204th Street and then along the west
10 side of Kenwood Avenue to Torrance Boulevard via an unimproved drainage ditch ("the
11 Kenwood Ditch"). The stormwater pathway continued under Torrance Boulevard, through the
12 eastern portion of the 20846 Normandie Avenue Property (as well as through portions of adjacent
13 residential properties), and beyond.

14 22. In the late 1960's and early 1970's, Los Angeles County installed a stormdrain
15 ("Project 685") to convey stormwater replacing a portion of the historical stormwater pathway
16 (including the Kenwood Ditch and the portion of the historical stormwater pathway at the 20846
17 Normandie Avenue Property).

18 23. Prior to 1955, process wastewater (containing DDT) from DDT manufacturing
19 operations at the Montrose Plant Property would occasionally be released from the Montrose
20 Plant Property. In February 1953, City of Los Angeles officials discovered ponded process
21 wastewater from the Montrose Plant Property at the corner of 204th Street and Kenwood Avenue.

22 24. DDT and isomers of BHC at the Montrose Plant Property were also periodically
23 carried into and down the historical stormwater pathway with rainwater.

1 25. Concentrations of total DDT in soil at the Montrose Plant Property are present at
2 levels in excess of 24,000 parts per million ("ppm"). DDT is also present at the Montrose Plant
3 Property at levels (up to 710,000 ppm) consistent with the presence of spilled or discarded
4 product, intermediates or off-specification technical or formulated DDT.

5 26. The maximum concentration, reported in the 1998 Remedial Investigation Report,
6 of total DDT in soil in the Normandie Avenue ditch south of the Montrose Plant Property is
7 8,600 ppm.

8 27. Maximum concentrations of total DDT were above 17 ppm (exposure point
9 concentration corresponding to a 10^{-5} excess lifetime cancer risk) at 16 residential properties in
10 the historical stormwater pathway along 204th Street and Kenwood Avenue and were above 170
11 ppm DDT (exposure point concentration corresponding to a 10^{-4} excess lifetime cancer risk) at
12 six of those properties. At three residential properties, a depositional white layer was discovered
13 containing up to 10% DDT by weight. The soil containing these DDT levels was removed by
14 EPA as part of the Kenwood Avenue Removal Action.

15 28. EPA has previously determined that the regional background DDT concentrations
16 in Los Angeles County averaged between 1 and 3 ppm DDT, and ranged up to 10 ppm.

17 29. The 20846 Normandie Avenue Property occupies approximately 7.7 acres and is
18 located southeast of the Montrose Plant Property along Normandie Avenue. The Property is
19 zoned commercial.

20 30. Seven residential properties are located along or proximate to the eastern boundary
21 of the 20846 Normandie Avenue Property. The 20846 Normandie Avenue Property is separated
22 from the residential properties by a chain link fence with slats (northern portion) and a cinder
23 block fence (southern portion).

1 31. The 20846 Normandie Avenue Property is occupied by Ecology Control Industries,
2 Inc. ("ECI"), a registered hazardous waste transporter. ECI conducts operations at the Property
3 as part of its business as a hazardous waste transporter.

4 32. Ecology Control Industries, Inc. is owned by Mr. Ronald J. Flury.

5 33. The 20846 Normandie Avenue Property is owned by Mr. Ronald J. Flury.

6 34. The historical stormwater pathway passed through the eastern portion of the 20846
7 Normandie Avenue Property and portions of the adjacent residential properties.

8 35. Soil sampling was conducted, in 2005, at the 20846 Normandie Avenue Property as
9 part of site assessment activities commissioned by the Property owner, Mr. Flury.

10 36. The maximum concentration of total DDT found in sampling conducted in 2005 by
11 Mr. Flury at the 20846 Normandie Avenue Property was 325 ppm. The sample was taken in the
12 area of the 20846 Normandie Avenue Property where the historical stormwater pathway was
13 located.

14 37. The upper range of the regional background DDT concentration, 10 ppm, was
15 exceeded in 13 percent of the samples collected at the 20846 Normandie Avenue Property in
16 2005; all samples exceeding 10 ppm were collected from the Property in the area of the historical
17 stormwater pathway. These soil sample results also exceed the State of California hazardous
18 waste toxicity characteristic level for DDT of 1 ppm.

19 38. Alpha-BHC and beta-BHC isomers are present in soil at the Montrose Plant
20 Property. Alpha-BHC and beta-BHC have also been detected in the historical stormwater
21 pathway, including the Normandie Avenue ditch south of the Montrose Plant Property and along
22 the west side of Kenwood Avenue.

23 39. Isomers of BHC were also detected in soil samples collected in the area of the

1 historical stormwater pathway at the 20846 Normandie Avenue Property. In addition, chlordane,
2 PCBs and total petroleum hydrocarbons were detected in soil samples from this area. The
3 maximum reported soil sample result for chlordane (4.45 ppm) exceeds the State of California
4 hazardous waste toxicity characteristic level for chlordane of 2.5 ppm.

5 40. At the direction of Mr. Flury, Ecology Control Industries excavated contaminated
6 soil found at 20846 Normandie Avenue Property primarily from the area where the historical
7 stormwater pathway was located. An estimated 3,000 cubic yards of soil were removed by ECI
8 between March and early June of 2005, from five excavation areas.

9 41. In early June of 2005 and prior to EPA's first conference call with Mr. Flury on
10 June 13, ECI transported a total of 512 tons of the excavated soil to American Remedial
11 Technologies in Lynwood, California. American Remedial Technologies does not have a permit
12 from the State of California to accept hazardous waste. The ultimate disposition of the soil has
13 not been confirmed by EPA.

14 42. EPA became aware of soil sampling activities and DDT contamination at the 20846
15 Normandie Avenue Property in late May and early June 2005 through telephone conversations
16 with Mr. Flury's consultants who had contacted EPA for information.

17 43. A conference call was held on June 13, 2005 with EPA, the Property owner,
18 counsel for the Property owner and a consultant to the Property owner. During that call, EPA
19 learned that soil had been previously transported to American Remedial Technologies. EPA
20 requested that the Property owner stop all excavation activities and any related offsite
21 transportation/disposal. EPA requested that all excavated soil at the Property be securely covered
22 in order to prevent or limit any wind-driven dust releases. EPA also requested all information
23 regarding the soil sampling and excavation activities, and subsequently issued a request for that

1 information pursuant to Section 104(e) of CERCLA, 42 U.S.C. Section 9604(e).

2 44. Excavated soil is located in four piles on the eastern portion of the 20846
3 Normandie Avenue Property. The soil piles are as close as fifteen (15) feet from residential
4 properties; these residential properties are currently occupied and children reside at some of these
5 residential properties. These residential properties are located downwind of the excavated soil,
6 given the prevailing wind direction in the area.

7 45. There are five open excavations all in the eastern portion of the Property. These
8 excavations are as close as five (5) feet from the property line with the residential properties. No
9 efforts to prevent fugitive dust emissions from the open excavations have been undertaken by the
10 owner despite EPA requests to do so.

11 46. On June 27, 2005, counsel for Mr. Flury confirmed by letter that the piles of
12 excavated soil had been covered. However, during a visit to the Property on June 29, 2005, EPA
13 contractors found that one of the excavated soil piles was not covered and another was only
14 partially covered. On July 8, 2005, counsel for Mr. Flury confirmed that the soil piles had been
15 covered. Following an EPA visit to the Property on July 19, 2005, EPA requested, in a July 25,
16 2005 letter, that additional efforts be undertaken by the Property owner to monitor and maintain
17 the covers on the soil piles and to take actions to prevent fugitive dust emissions from the open
18 excavations.

19 47. In July 2005, EPA concluded that hazardous substances (DDT and isomers of
20 BHC) historically released from the Montrose Plant Property into the historical stormwater
21 pathway have come to be located on the 20846 Normandie Avenue Property. EPA extended its
22 remedial investigation of the Montrose Superfund Site historical stormwater pathway to include
23 the Property.

1 48. The soil piles and excavations are located in the lowest-lying portion of the
2 Property. The Property has been previously graded and improved to direct stormwater from the
3 bulk of the Property to the eastern area where a storm grate receives and directs stormwater into
4 the Los Angeles County Project 685 stormdrain (a subsurface concrete drain traversing the
5 Property along the eastern border of the Property). The Project 685 stormdrain empties into the
6 Torrance Lateral then into the Dominguez Channel which empties into the Consolidated Slip in
7 the Los Angeles Harbor.

8 49. During storm events, contaminated soil (containing hazardous substances) from the
9 soil piles could be released to adjacent residential properties via stormwater sheet flow or
10 released into the Los Angeles County Project 685 stormdrain, potentially impacting ecological
11 receptors in Dominguez Channel and Consolidated Slip. In addition, fugitive dust releases may
12 occur as the result of inadequate or ineffective efforts to keep the soil piles covered or to keep
13 soil from the walls of the open excavation secured.

14 50. Of the soil samples taken from the area of the historical stormwater pathway at the
15 20846 Normandie Avenue Property, the maximum DDT concentration was 325 ppm. Thirteen
16 percent (13%) of sample concentrations exceeded the upper range of regional DDT background
17 concentrations (10 ppm).

18 51. Eighteen (18) samples taken from the area of the historical stormwater pathway at
19 the 20846 Normandie Avenue Property (primarily from two excavations, SB-05 and SB-20 both
20 of which are within twenty feet of adjacent residential properties) had DDT concentrations
21 exceeding 17 ppm, which corresponds to a 10^{-5} excess cancer risk for lifetime residential
22 exposure.

23 52. Six (6) samples taken from the area of the historical stormwater pathway at the

1 20846 Normandie Avenue Property had DDT concentrations exceeding the concentration
2 corresponding to the noncancer Hazard Index of 1 for a residential exposure scenario (35 ppm).
3 These samples were collected from two to five feet below ground surface in the areas of SB-05
4 and SB-20 adjacent to the fence line separating the Property from residential properties.

5 53. Despite requests from EPA, the Respondents have failed to undertake voluntary
6 efforts to address the excavated soil piles and backfill the open excavations.

7 54. On November 2, 2005, EPA issued a CERCLA Removal Action Memorandum
8 selecting response actions to address the soil piles and open excavations at the Property. Copies
9 of the Action Memorandum were provided to Respondents on November 3, 2005. Copies of the
10 Administrative Record supporting the removal actions selected in the Action Memorandum were
11 provided to the Respondents as an enclosure to EPA correspondence to the Respondents dated
12 November 14, 2005.

13 55. On November 3, 2005, EPA requested that Montrose, ECI and Mr. Flury provide
14 Notices of Intent to conduct the response actions selected in the November 2, 2005 Removal
15 Action Memorandum. The Notices of Intent were due to EPA on November 7, 2005. Montrose
16 requested an extension of time to respond and, on November 9, 2005, Montrose in
17 correspondence to EPA declined to provide a Notice of Intent to conduct the response actions.
18 Mr. Flury and ECI have not provided a Notice of Intent.

19 V. CONCLUSIONS OF LAW

20 Based on the above Findings of Fact and the Administrative Record for the 20846 Normandie
21 Avenue Removal Action, EPA has determined that:

22 56. The Property is a facility as defined by Section 101(9) of CERCLA, 42 U.S.C.

1 Section 9601(9).

2 57. The Montrose Plant Property is a facility as defined by Section 101(9) of CERCLA,
3 42 U.S.C. Section 9601(9).

4 58. DDT, DDE and DDD are "hazardous substances" as defined by section 101(14) of
5 CERCLA, 42 U.S.C. Section 9601(14). Alpha-BHC, beta-BHC and gamma-BHC are all
6 hazardous substances as defined by CERCLA Section 101(14). Chlordane is a "hazardous
7 substance" as defined by CERCLA Section 101(14). Polychlorinated biphenyls (PCBs) are
8 "hazardous substances" as defined by CERCLA Section 101(14).

9 59. Respondent, Ecology Controls Industries, Inc. is a "person" as defined by Section
10 101(21) of CERCLA, 42 U.S.C. Section 9601(21).

11 60. Respondent, Ecology Control Industries, Inc., is liable, under Section 107(a)(1-3)
12 of CERCLA, 42 U.S.C. Section 9607(a)(1-3), for all response costs incurred by the United States
13 with respect to the Removal Actions, including but not limited to costs related to the Work.

14 61. Respondent, Mr. Ronald J. Flury, is a "person" as defined by Section 101(21) of
15 CERCLA, 42 U.S.C. Section 9601(21).

16 62. Respondent, Mr. Ronald J. Flury is liable, under Section 107(a)(1-3) of CERCLA,
17 42 U.S.C. Section 9607(a)(1-3), for all response costs incurred by the United States with respect
18 to the Removal Actions, including but not limited to costs related to the Work.

19 63. Respondent, Montrose Chemical Corporation of California, Inc., is a "person" as
20 defined by Section 101(21) of CERCLA, 42 U.S.C. Section 9601(21).

21 64. Respondent, Montrose Chemical Corporation of California, Inc., is liable, under
22 Section 107(a)(2) of CERCLA, 42 U.S.C. Section 9607(a)(2), for all response costs incurred by
23 the United States with respect to the Removal Actions, including but not limited to costs related

1 to the Work.

2 65. Respondents are jointly and severably liable under Section 107(a) of CERCLA, 42
3 U.S.C. Section 9607(a), for all response costs incurred by the United States with respect to the
4 Removal Actions, including but not limited to costs related to the Work.

5 66. Conditions at the Property, as described in the Findings of Fact above, constitute an
6 actual or threatened "release" of hazardous substances from the facility as defined by Section
7 101(22) of CERCLA, 42 U.S.C. Section 9601(22).

8 67. Conditions at the Property as described in the Findings of Fact constitute or may
9 constitute an imminent and substantial endangerment to public health, welfare or the
10 environment.

11 68. The removal actions required by this Order are necessary to protect the public
12 health, welfare or the environment and are not inconsistent with the National Contingency Plan,
13 40 C.F.R. Part 300, or CERCLA.

14 VI. DETERMINATIONS

15 Based on the Findings of Fact and the Conclusions of Law stated herein, EPA has made
16 the following determinations:

17 69. That an actual or threatened release of hazardous substances from the Property
18 may present an imminent and substantial endangerment to public health or welfare or the
19 environment.

20 70. That conditions at the Property constitute a threat to public health or welfare or
21 the environment based on consideration of the factors stated in the NCP at 40 C.F.R. §
22 300.415(b), and that the actions required by this Order are necessary to protect public health or

1 welfare or the environment.

2 71. That the actions required by this Order, if properly performed, will be consistent
3 with the NCP, and are appropriate to protect the public health or welfare or the environment.

4 72. The excavated soil currently stored at the Property is classified as hazardous waste
5 under California law. The excavated soil must be managed as hazardous waste within the State
6 of California. If disposed of within California, the excavated soil must be managed consistent
7 with California hazardous waste land disposal restrictions.

8 73. Disposal of the excavated soil must occur at an offsite facility meeting the
9 requirements of Section 121(d)(3) of CERCLA, 42 U.S.C. Section 9621(d)(3).

10 **VII. NOTICE TO THE STATE**

11 74. Pursuant to Section 106(a) of CERCLA, 42 U.S.C. § 9606(a), EPA has notified
12 the State of California of the issuance of this Order by providing a copy of this Order.

13 **VIII. EFFECTIVE DATE**

14 75. This Order will become effective on December 1, 2005 (the "Effective Date").
15

16 **IX. ORDER**

17 76. Based on the Findings of Fact, Conclusions of Law, and Determinations, EPA
18 hereby orders Respondents to perform the Work under the direction of the EPA On Scene
19 Coordinator ("OSC"), as designated in Section XIV, and to comply with all requirements of this
20 Order until EPA provides notice that the Response Action is complete.

1 A. Work to be Performed

2 77. On November 2, 2005, the EPA Region 9, Site Cleanup Branch Chief, Superfund
3 Division signed an Action Memorandum to implement a time-critical removal action involving
4 the hauling and off-site disposal of DDT contaminated soil in piles at the ECI Property, and
5 backfilling and covering of open excavations. Respondents shall perform, at a minimum, the
6 Work described in the Removal Action Memorandum and other Work required by this Order,
7 including the following: a) arrange for the transportation of the excavated contaminated soil by a
8 licenced hazardous waste transporter; b) if disposed of in California, arrange for the treatment of
9 the contaminated soil at a permitted hazardous waste treatment facility as required by California
10 hazardous waste treatment requirements and standards; c) arrange for the disposal of the
11 excavated contaminated soil in accordance with the requirements of the Removal Action
12 Memorandum; and, d) arrange for the lining, backfilling with clean fill, and covering of
13 excavated areas, in accordance with the requirements of the Removal Action Memorandum.
14 The transportation, treatment (if in California), and disposal of the contaminated soil shall be
15 conducted by Respondents in accordance with the Removal Action Memorandum, and all
16 applicable state and federal laws including but not limited to state laws concerning RCRA
17 regulated hazardous waste, if disposed in California.

18 78. Respondents shall immediately secure and maintain soil piles and excavations to
19 prevent releases via surface water runoff or wind erosion, in accordance with the Removal
20 Action Memorandum.

21 79. On or before December 12, 2005, Respondents shall submit to EPA for approval, a
22 Work Plan for conducting the Work, as set forth in items A through K, below, and consistent
23 with the Removal Action Memorandum. The Work Plan shall provide a concise description of

1 the activities to be conducted to implement the Work required by this Order and the Removal
2 Action Memorandum, and shall include a proposed schedule for implementing and completing
3 such activities consistent with the schedule in the Removal Action Memorandum. The Work
4 Plan shall comply with the guidelines for preparation provided in Paragraph 80, below, and at a
5 minimum, shall require the Respondents to commence the following removal activities, set out
6 below, in accordance with the EPA approved schedule which shall be part of the Work Plan
7 after EPA approves the Work Plan pursuant to Paragraphs 80, 83 and 84 of this Order.

- 8 A) Manage soil in piles and from excavation walls to prevent release of fugitive dust
9 by wind erosion. Perform air monitoring and sampling in accordance with
10 Occupational Safety and Health Administration ("OSHA") regulations, South
11 Coast Air Quality Management District ("SCAQMD") Rule 403 for Fugitive
12 Dust, and EPA Removal Action Memorandum.
- 13 B) Prevent release from the Property via surface water runoff to the stormgrate and
14 Los Angeles county storm drainage in accordance with the Removal Action
15 Memorandum.
- 16 C) Characterize soil for disposal, identifying all chemical compounds in such soil as
17 required by the receiving facility and state and federal laws.
- 18 D) Monitor air during handling of soil, including loading soil containing hazardous
19 substances for transport, and lining and backfilling of excavations, to prevent
20 fugitive dust releases to the environment, in accordance with SCAQMD Rule 403,
21 and the Removal Action Memorandum.
- 22 E) Transport excavated soil to an appropriate permitted hazardous waste landfill, in

1 accordance with the Removal Action Memorandum.

2 F) Prevent releases to the environment during transportation, in accordance with
3 SCAQMD Rule 403, DTSC and Department of Transportation (DOT)
4 requirements for hauling hazardous waste to a permitted hazardous waste facility,
5 and the Removal Action Memorandum. Each transfer of hazardous substances,
6 pollutants or contaminants off-Property must be consistent with Section 121(d)(3)
7 of CERCLA, 42 U.S.C. § 9621(d)(3), and the EPA procedures for planning and
8 implementing off-Property Response Actions established at 40 C.F.R. § 300.440.

9 G) Identify a clean backfill source and provide EPA with documentation related to
10 such backfill proposed for use in filling excavations at the Property including, but
11 not limited to analytical data and source, in accordance with the Removal Action
12 Memorandum.

13 H) Line and then backfill open excavations using EPA-approved clean fill. Prevent
14 any releases during lining and backfilling via fugitive dust wind erosion or surface
15 water. Perform air monitoring and sampling in accordance with OSHA
16 regulations, SCAQMD Rule 403 for Fugitive Dust, and the Removal Action
17 Memorandum.

18 I) Cover the backfilled excavations with asphalt or concrete in accordance with the
19 approved Work Plan and the Removal Action Memorandum.

20 J) Maintain the project Health and Safety Plan, meeting the requirements in
21 Paragraph 80.A and OSHA's criteria (29 C.F.R. § 1910.120), at the Property
22 during all phases of the response;

23 K) Provide EPA with copies of all documentation related to off-Property disposal or

1 other disposition of wastes including, but not limited to, manifests, waste profiles
2 and analytical data and disposal costs.

3 80. The Work Plan required in Paragraph 79 shall be reviewed by EPA, which may
4 approve, disapprove, require revisions, or modify the Work Plan. Respondents shall prepare the
5 Work Plan elements to satisfy Paragraphs 79.J and 80.A as a separate document for EPA review.
6 Once approved, each element of the Work Plan shall be deemed to be incorporated into and made
7 a fully enforceable part of this Order. The Respondents shall implement the Work Plan as finally
8 approved by the EPA. In addition to the requirements listed in Paragraph 79, the Work Plan shall
9 include:

10 A) A Health & Safety Plan, prepared in accordance with EPA's Superfund Standard
11 Operating Safety Guide, dated June 1992, which complies with all current OSHA
12 regulations applicable to Hazardous Waste Operations and Emergency Response, 29
13 C.F.R. Part 1910. Respondents shall incorporate all changes to the Health & Safety Plan
14 recommended by EPA and implement the Health & Safety Plan throughout the
15 performance of the removal action; and

16 B) A Quality Assurance Project Plan ("QAPP") that is consistent with EPA Guidance
17 for Quality Assurance Project Plans (EPA QA/G-5); Preparation of a U.S. EPA Region 9
18 Field Sample Plan for EPA-Lead Superfund Projects (Document Control No.: 9QA-05-
19 93); and Guidance for the Data Quality Objectives Process (EPA QA/G-4). Soil
20 sampling activities shall utilize proper soil assessment techniques as defined in EPA
21 Document SW-846 (Test Methods for Evaluating Solid Wastes, Physical/ Chemical

1 Methods), Chapter 9 (Sampling Plan) or appropriate ASTM standards.

2 81. On or before December 8, 2005, Respondents shall provide EPA with
3 documentation that reasonably demonstrates their financial ability to complete the work to be
4 performed pursuant to this Order. Examples of adequate financial documentation that EPA may
5 accept include, but are not limited to, a signed contract with or guarantee on the part of the
6 Respondents' contractor indicating that it will complete the work to be performed (including
7 payment terms, such as whether the contract is pre-paid); an irrevocable letter of credit payable to
8 EPA from a financial institution; a policy of insurance that provides EPA with acceptable rights
9 as a beneficiary thereof; an escrow account for the value of the work to be performed; or a
10 demonstration by the Respondents that they have adequate net worth and/or cash flow to pay for
11 the work to be performed (which may include financial statements, auditors' reports, and the
12 like).

13 82. Respondents shall provide EPA with a written report on completion of the
14 transportation of hazardous substances or wastes for treatment and disposal. This report must
15 contain a summary of the activities performed to comply with this Order. Within fifteen (15)
16 days after completing the Response Action, Respondents shall provide EPA with this final
17 summary report, which also shall include all invoices submitted by contractors (which shall
18 identify specific work performed), and copies of all analytical data generated during the response
19 action.

20 83. All documents, including technical reports, and other correspondence, except as
21 provided in Paragraph 97, to be submitted by the Respondents pursuant to this Order, shall be
22 sent by over-night mail to the following addressee or to such other addressees as EPA hereafter
23 may designate in writing, and shall be deemed submitted on the date received by EPA:

1 Susan Keydel
2 Mailcode SFD 7-1
3 U.S. EPA, Region 9
4 75 Hawthorne Street
5 San Francisco, CA 94105

6 Respondents shall submit three (3) copies of each document to EPA.

7 84. EPA shall review, comment, and approve or disapprove each plan, report, or other
8 deliverable submitted by Respondents. All EPA comments on draft deliverables shall be
9 incorporated by the Respondents. Or, at the sole discretion of EPA, EPA may conditionally
10 approve a deliverable in which case EPA's comments are deemed to be incorporated by reference
11 into the deliverable (and are enforceable as part of that deliverable) but the Respondents need not
12 revise the deliverable itself. EPA shall notify the Respondents in writing of EPA's approval,
13 conditional approval or disapproval of a deliverable. In the event of any disapproval, EPA shall
14 specify the reasons for such disapproval, EPA's required modifications, and a time frame for
15 submission of the revised report, document, or deliverable. If the modified report, document or
16 deliverable is disapproved by EPA, EPA first shall notify the Respondents of its disapproval of
17 the resubmitted report, document, or deliverable. EPA may elect to draft its own report,
18 document or deliverable and incorporate it as part of this Order, may seek penalties from the
19 Respondents for failing to comply with this Order, and may conduct the remaining work required
20 by this Order and seek to recover costs from Respondents.

21 85. For purposes of this Order, EPA's authorized representatives shall include, but not
22 be limited to, consultants and contractors hired by EPA to oversee the activities required by this
23 Order.

1 B. Selection of Contractor(s) and Subcontractor(s)

2 86. All Work performed by or on behalf of Respondents pursuant to this Order shall
3 be performed by qualified individuals or contractors with expertise in hazardous waste site
4 investigation or remediation, unless agreed otherwise by EPA. On or before December 8, 2005,
5 Respondents shall notify EPA in writing of the name, title and qualifications of the individual(s)
6 who will be responsible for carrying out the terms of this Order, and the name(s) of any
7 contractor(s) or subcontractor(s). The qualifications of the persons, contractors, and
8 subcontractors undertaking the work for Respondents shall be subject to EPA review and
9 approval.

10 87. If EPA disapproves of any person's or contractor's technical or work-experience
11 qualifications, EPA will notify the Respondents in writing. Respondents shall, within five (5)
12 working days of Respondent's receipt of EPA's written notice, notify EPA of the identity and
13 qualifications of the replacement(s). Should EPA disapprove of the proposed replacement(s),
14 Respondents shall be deemed to have failed to comply with the Order.

15 88. Respondents may propose to change the individual(s), contractor(s), or
16 subcontractor(s) retained to direct and supervise the work required by this Order. If Respondents
17 wish to propose such a change, Respondents shall notify EPA, in advance and in writing, of the
18 name, title, and qualifications of the proposed individual(s), proposed contractor(s), or proposed
19 subcontractor(s), and such individual(s), contractor(s) or subcontractor(s) shall be subject to
20 approval by EPA in accordance with the terms of Paragraphs 86 and 87, above. The naming of
21 any replacement(s) by Respondents shall not extend any deadlines required by this Order nor
22 relieve the Respondents of any of their obligations to perform the work required by this Order.

23 89. Respondents will notify EPA of the respective field activities at least seventy-two

1 (72) hours before initiating them so that EPA may adequately schedule oversight tasks.

2 90. Respondents shall submit to EPA a certification that Respondents or their
3 contractor(s) and subcontractor(s) have adequate insurance coverage or other ability, subject to
4 approval of EPA, to compensate for liabilities for injuries or damages to persons or property that
5 may result from the activities to be conducted by or on behalf of Respondents pursuant to this
6 Order. Adequate insurance shall include comprehensive general liability insurance and
7 automobile insurance with limits of one million dollars, combined single limit. If the
8 Respondents demonstrate by evidence satisfactory to EPA that any contractor or subcontractor
9 maintains insurance equivalent to that described above, or insurance covering the same risks but
10 in a lesser amount, then the Respondents need provide only that portion of the insurance
11 described above that is not maintained by such contractor or subcontractor. Respondents shall
12 ensure that such insurance or indemnification is maintained for the duration of performance of
13 the Work required by this Order. Respondents shall ensure that the United States is named as an
14 additional insured on any such insurance policies.

15 C. General Provisions

16 91. All Work required by this Order shall be conducted in accordance with:
17 CERCLA; the NCP; EPA Region 9 "Guidance for Preparing Quality Assurance Project Plans for
18 Superfund Remedial Projects" (EPA, November 1992); any final amended or superseding
19 versions of such documents provided by EPA; other applicable EPA guidance documents; any
20 Work Plan or individual components approved pursuant to Paragraph 84 of this Order; and any
21 report, document or deliverable prepared by EPA because Respondents failed to comply with this
22 Order.

23 92. All plans, schedules, and other reports that require EPA's approval and are

1 required to be submitted by the Respondents pursuant to this Order shall, after approval by EPA,
2 be incorporated into and be enforceable under this Order.

3 93. EPA will oversee Respondents's activities. Respondents will support EPA's
4 initiation and implementation of activities needed to carry out its oversight responsibilities.
5 Respondents also shall cooperate and coordinate the performance of all work required to be
6 performed under this Order with all other work being performed at the Property, including work
7 performed by EPA, the State, or any other party performing work at the Property with the
8 approval of EPA.

9 94. Respondents shall perform all actions required pursuant to this Order in
10 accordance with all applicable local, state, and federal laws and regulations except as provided in
11 Section 121(e) of CERCLA, 42 U.S.C. § 9621(e), and 40 C.F.R. §§ 300.400(e) and 300.415(j).
12 In accordance with 40 C.F.R. § 300.415(j), all on-Property actions required pursuant to this
13 Order shall, to the extent practicable, as determined by EPA, considering the exigencies of the
14 situation, attain applicable or relevant and appropriate requirements under federal environmental
15 or state environmental or facility siting laws.

16 **X. NOTICE OF INTENT TO COMPLY**

17 95. Respondents shall provide written notice to EPA of Respondents' irrevocable
18 intent to comply with this Order. Such notice shall be due no later than 5pm (PST) on December
19 2, 2005. Failure to respond, or failure to provide notice of intent to comply with this Order, shall
20 be deemed a refusal to comply with this Order.

1 **XI. OPPORTUNITY TO CONFER**

2 96. Respondents may request a conference with the counsel for EPA and the Section
3 Chief of the Superfund Division Site Cleanup Section I, or whomever the Section Chief may
4 designate as her representative. Any such request for a conference shall be conveyed in writing
5 to EPA on or before November 28, 2005. If requested, the conference shall occur on or before
6 November 30, 2005 (unless extended by mutual agreement of the Parties) at EPA's Regional
7 Office, 75 Hawthorne Street, San Francisco, California.

8 97. At any conference held pursuant to Respondents' request, the Respondents may
9 appear in person, or be represented by an attorney or other representative. If Respondents desire
10 such a conference, Respondents shall contact John Lyons, Assistant Regional Counsel at (415)
11 972-3889.

12 98. The purpose and scope of any such conference held pursuant to this Order shall be
13 limited to issues involving the implementation of the Response Actions required by this Order
14 and the extent to which Respondents intend to comply with this Order. If such a conference is
15 held, the Respondents may present any evidence, arguments or comments regarding this Order,
16 its applicability, any factual determinations on which the Order is based, the appropriateness of
17 any action that the Respondents are ordered to take, or any other relevant and material issue.
18 Any such evidence, arguments or comments should be reduced to writing and submitted to EPA
19 within three (3) working days following the conference. This conference is not an evidentiary
20 hearing, and does not constitute a proceeding to challenge this Order. It does not give
21 Respondents a right to seek review of this Order, or to seek resolution of potential liability, and
22 no official record of the conference will be made. If no conference is requested, any such
23 evidence, arguments or comments must be submitted in writing within three (3) days following

1 the Effective Date of this Order. Any such writing should be directed to John J. Lyons, Assistant
2 Regional Counsel, at the following address:

3 John Lyons, Assistant Regional Counsel

4 Office of the Regional Counsel

5 U.S. EPA, Region 9, Mailcode ORC3

6 75 Hawthorne Street

7 San Francisco, CA 94105

8 99. Respondents are hereby placed on notice that EPA will take any action that may
9 be necessary in the opinion of EPA for the protection of public health and welfare and the
10 environment, and Respondents may be liable for the costs of those actions under Section 107(a)
11 of CERCLA, 42 U.S.C. § 9607(a).

12 **XII. ENDANGERMENT AND EMERGENCY RESPONSE**

13 100. In the event of any action or occurrence during the performance of the Work that
14 causes or threatens to cause a release of a hazardous substance or that may present an immediate
15 threat to public health or welfare or the environment, Respondents shall immediately take all
16 appropriate action(s) to prevent, abate, or minimize the threat, and shall immediately notify
17 EPA's primary OSC, or, if the primary OSC is unavailable, EPA's alternate OSC, as designated
18 below in Paragraph 106. If neither of these persons is available, Respondents shall notify the
19 EPA Emergency Response Unit, Region 9, by calling (800) 300-2193. Respondents shall take
20 such action(s) in consultation with EPA's OSC and in accordance with all applicable provisions
21 of this Order, including but not limited to the approved Health and Safety Plan.

22 101. Nothing in the preceding Paragraph shall be deemed to limit any authority of the

1 United States to take, direct, or order all appropriate action to protect human health and the
2 environment or to prevent, abate, or minimize an actual or threatened release of hazardous
3 substances at or from the Property.

4 **XIII. MODIFICATION OF WORK REQUIRED**

5 102. In the event of unanticipated or changed circumstances at the Property,
6 Respondents shall notify the EPA OSC by telephone within twenty-four (24) hours of discovery
7 of the unanticipated or changed circumstances. This verbal notification shall be followed by
8 written notification postmarked no later than within three (3) days of discovery of the
9 unanticipated or changed circumstances.

10 103. The EPA Superfund Division Branch Chief may determine that in addition to
11 tasks addressed herein, additional work may be required to address the unanticipated or changed
12 circumstances. In accordance with Section 106(a) of CERCLA, the Branch Chief may direct, as
13 an amendment to this Order, that Respondents perform these tasks in addition to those required
14 herein. Respondents shall implement the additional tasks that the Branch Chief identifies. The
15 additional work shall be completed according to the standards, specifications, and schedules set
16 forth by the Branch Chief in any modifications to this Order.

17 **XIV. DESIGNATED PROJECT MANAGERS**

18 104. EPA designates Susan Keydel, an employee of EPA Region 9, as its primary OSC
19 and designated representative, who shall have the authorities, duties, and responsibilities vested
20 in the OSC by the NCP. This includes, but is not limited to, the authority to halt, modify,
21 conduct, or direct any tasks required by this Order or undertake the Response Actions (or

1 portions of the Response Actions) when conditions at the Property present or may present a
2 threat to public health or welfare or the environment as set forth in the NCP. On or before
3 December 8, 2005, Respondents shall designate a Project Coordinator who shall be responsible
4 for overseeing Respondents' implementation of this Order. To the maximum extent possible, all
5 oral communications between Respondents and EPA concerning the activities performed
6 pursuant to this Order shall be directed through EPA's OSC and Respondents' Project
7 Coordinator. All documents, including progress and technical reports, approvals, and other
8 correspondence concerning the activities performed pursuant to the terms and conditions of this
9 Order, shall be delivered in accordance with Paragraph 83, above.

10 105. EPA and Respondents may change their respective OSC and Project Coordinator.
11 Notification of such a change shall be made by notifying the other party in writing at least five
12 (5) days prior to the change, except in the case of an emergency, in which case notification shall
13 be made orally followed by written notification as soon as is practicable.

14 106. Consistent with the provisions of this Order, the EPA designates Jeff Dhont as an
15 alternate OSC, in the event Susan Keydel is unavailable. During such times, Jeff Dhont shall
16 have the authority vested in the OSC by the NCP, as set forth in Paragraph 104 above.

17 107. The absence of the EPA OSC from the Property shall not be cause for the
18 stoppage of work. Nothing in this Order shall limit the authority of the EPA OSC under federal
19 law.

20 **XV. ACCESS**

21 108. Respondents shall permit EPA and its authorized representatives, including its
22 contractors and the State, to have access at all times to the Property to monitor any activity

1 conducted pursuant to this Order and to conduct such tests or investigations as EPA deems
2 necessary. Nothing in this Order shall be deemed a limit on EPA's authority under federal law to
3 gain access to the Property.

4 109. To the extent that Respondents require access to property other than property that
5 they own to carry out the terms of this Order, Respondents shall, within a reasonable time to
6 implement the requirements of this Order, obtain access for: EPA, its contractors, oversight
7 officials, and other authorized representatives; state oversight officials or contractors; and
8 Respondents and their authorized representatives. If Respondents fail to gain access within the
9 time period necessary to implement the requirements of this Order, Respondents shall continue to
10 use best efforts to obtain access until access is granted. For purposes of this Paragraph, "best
11 efforts" include, but are not limited to, the payment of money as consideration for access. If
12 access is not provided within the time referenced above, EPA may obtain access under Sections
13 104(e) or 106(a) of CERCLA and recover any costs incurred pursuant to Section XX of this
14 Order.

15 **XVI. ADMINISTRATIVE RECORD**

16 110. The Administrative Record supporting these Removal Actions is available for
17 review at the U.S. EPA Region 9 Superfund Records Center, 95 Hawthorne Street, San
18 Francisco, California during normal business hours.

19 **XVII. DELAY IN PERFORMANCE**

20 111. Any delay in the performance of any requirement of this Order that, in the EPA's
21 sole judgment and discretion, is not properly justified by Respondents under the terms of this

1 Section shall be considered a violation of this Order. Any delay in performance of any
2 requirement of this Order shall not affect any other obligation of Respondents under the terms
3 and conditions of this Order.

4 112. Respondents shall notify EPA of any delay or anticipated delay in performing any
5 requirement of this Order. Such notification shall be made by telephone to EPA's primary OSC
6 within twenty-four (24) hours after Respondents first know or should have known that a delay
7 might occur. Respondents shall adopt all reasonable measures to avoid or minimize any such
8 delay. Within three (3) days after notifying EPA by telephone, Respondents shall provide written
9 notification fully describing the nature of the delay, any justification for delay, any reason why
10 the Respondents should not be held strictly accountable for failing to comply with any relevant
11 requirements of this Order, the measures planned and taken to minimize the delay, and a
12 schedule for implementing the measures that will be taken to mitigate the effect of the delay.
13 Increased costs or expenses associated with implementation of the activities called for in this
14 Order are not justifications for any delay in performance.

15 113. If Respondents are unable to perform any activity or submit any document within
16 the time required under this Order, the Respondents may, prior to the expiration of the time,
17 request an extension of time in writing. The extension request shall include a justification for the
18 delay. The submission of an extension request shall not itself affect or extend the time to
19 perform any of Respondents' obligations under this Order.

20 114. If EPA determines that good cause exists for an extension of time, it may grant a
21 request made by Respondents pursuant to Paragraph 113 above, and specify in writing to the
22 Respondents the new schedule for completion of the activity or submission of the document for
23 which the extension was requested.

1 **XVIII. RECORD PRESERVATION**

2 115. Respondents shall maintain, during the pendency of this Order, and for a
3 minimum of five (5) years after EPA provides notice to Respondents that the work has been
4 completed, a repository of the records and documents required to be prepared under this Order.
5 In addition, Respondents shall retain copies of the most recent version of all documents that
6 relate to hazardous substances at the Property and that are in their possession or in the possession
7 of their employees, agents, contractors, or attorneys. After this five-year period, Respondents
8 shall notify EPA at least thirty (30) days before the documents are scheduled to be destroyed. If
9 EPA so requests, Respondents shall provide these documents to EPA.

10 **XIX. ENFORCEMENT AND RESERVATIONS**

11 116. EPA reserves the right to bring an action against Respondents under Section 107
12 of CERCLA, 42 U.S.C. § 9607, for recovery of any response costs incurred by the United States
13 related to this Order or otherwise incurred with respect implementation and/or oversight of the
14 Response Actions required by this Order and not reimbursed by Respondents. This reservation
15 shall include but not be limited to past costs, direct costs, indirect costs, the costs of oversight,
16 and the costs of compiling the cost documentation to support oversight costs, as well as accrued
17 interest as provided in Section 107(a) of CERCLA, 42 U.S.C. § 9607(a).

18 117. Notwithstanding any other provision of this Order, at any time during the
19 Response Action, EPA may perform its own studies, complete the Work and Response Actions
20 (or any portion of the Response Actions) and seek reimbursement from Respondents for its costs,
21 or seek any other appropriate relief. Should EPA seek to perform any or all of the Work (as
22 defined in Paragraph 7 of this Order), Respondents, individually and collectively, are prohibited

1 by this Order from submitting a bid or bids to conduct Work under contract to EPA (or under a
2 subcontract to EPA's prime contractor) if EPA seeks to competitively bid all or portions of the
3 Work.

4 118. Nothing in this Order shall preclude EPA from taking any additional enforcement
5 action, including modification of this Order or issuance of additional Orders, or additional
6 remedial or removal actions as EPA may deem necessary, or from requiring Respondents in the
7 future to perform additional activities pursuant to CERCLA, 42 U.S.C. § 9606 and/or § 9607(a),
8 et seq., or any other applicable law. Respondents may be liable under CERCLA Section 107(a)
9 for the costs of any such additional actions.

10 119. Notwithstanding any provision of this Order, the United States hereby retains all
11 of its information gathering, inspection and enforcement authorities and rights under CERCLA,
12 the Resource Conservation and Recovery Act, or any other applicable statutes or regulations.

13 120. Notwithstanding compliance with the terms of this Order, including the
14 completion of the EPA-approved Response Action, Respondents are not released from liability,
15 if any, for any enforcement actions beyond the terms of this Order taken by EPA.

16 121. EPA reserves the right to take any enforcement action pursuant to CERCLA or
17 any other legal authority, including the right to seek injunctive relief, monetary penalties, reim-
18 bursement of response costs, and punitive damages for any violation of law or this Order.

19 122. EPA expressly reserves all rights and defenses that it may have, including EPA's
20 right both to disapprove of work performed by Respondents and to request the Respondents to
21 perform tasks in addition to those detailed in Section IX of this Order.

22 123. This Order does not release Respondents from any claim, cause of action or
23 demand in law or equity, including, but not limited to, any claim, cause of action, or demand that

1 lawfully may be asserted by representatives of the United States or the State.

2 124. No informal advice, guidance, suggestions, or comments by EPA regarding
3 reports, plans, specifications, schedules, and any other writing submitted by Respondents will be
4 construed as relieving Respondents of their obligation to obtain such formal approval as may be
5 required by this Order.

6 **XX. REIMBURSEMENT OF OVERSIGHT COSTS**

7 125. Respondents shall reimburse EPA, on written demand, for all response costs
8 incurred by the United States in overseeing Respondents' implementation of the requirements of
9 this Order. EPA may submit to Respondents on a periodic basis a bill for all response costs
10 incurred by the United States with respect to this Order. Respondents shall, within thirty (30)
11 days of receipt of the bill, remit by cashier's or certified check for the amount of those costs
12 made payable to the "Hazardous Substance Superfund," to the following address:

13 U.S. Environmental Protection Agency
14 Region 9 Superfund
15 P.O. Box 371099M
16 Pittsburgh, PA 15251

17 Respondents shall send a cover letter with any check and the letter shall identify the Montrose
18 Superfund Site (0926) - 20846 Normandie Avenue Removal Action by name and make reference
19 to this Order, including the EPA docket number stated above. Respondents shall send
20 notification of any amount paid, including a photocopy of the check, simultaneously to EPA (to
21 the attention of John Lyons, Office of Regional Counsel).

22 126. Interest at the rate established under Section 107(a) of CERCLA shall begin to
23 accrue on the unpaid balance from the due date of the original demand, notwithstanding any

1 objection to any portion of the costs.

2 **XXI. SEVERABILITY**

3 127. If any provision or authority of this Order or the application of this Order to any
4 circumstance is held by a court to be invalid, the application of such provision to other
5 circumstances and the remainder of this Order shall not be affected thereby, and the remainder of
6 this Order shall remain in force.

7 **XXII. DISCLAIMER**

8 128. The United States, by issuance of this Order, assumes no liability for any injuries
9 or damages to persons or property resulting from acts or omissions by Respondents, or their
10 employees, agents, successors, assigns, contractors, or consultants in carrying out any action or
11 activity pursuant to this Order. Neither EPA nor the United States shall be held as a party to any
12 contract entered into by Respondents, or their employees, agents, successors, assigns, contractors,
13 or consultants in carrying out any action or activity pursuant to this Order. This Order does not
14 constitute a pre-authorization of funds under section 111(a)(2) of CERCLA, 42 U.S.C.
15 § 9611(a)(2).

16 **XXIII. PENALTIES FOR NONCOMPLIANCE**

17 129. Respondents are advised pursuant to Section 106(b) of CERCLA, 42 U.S.C.
18 § 9606(b), that violation of this Order or subsequent failure or refusal to comply with this Order,
19 or any portion thereof, may subject Respondents to a civil penalty of up to \$32,500 per day for
20 each day in which such violation occurs, or such failure to comply continues. Failure to comply

1 with this Order, or any portion thereof, also may subject Respondents to liability for punitive
2 damages in an amount three times the amount of any cost incurred by the government as a result
3 of the failure of Respondents to take proper action, pursuant to Section 107(c)(3) of CERCLA,
4 42 U.S.C. § 9607(c)(3).

5 **XXIV. TERMINATION AND SATISFACTION**

6 130. The provisions of this Order shall be deemed satisfied on Respondents' receipt of
7 written notice from EPA that Respondents have demonstrated to the satisfaction of EPA that all
8 of the terms of this Order, including any additional tasks that EPA has determined to be
9 necessary, have been completed.

10 **Unilateral Administrative Order 09-2006-02**

11 IT IS SO ORDERED:

12 UNITED STATES
13 ENVIRONMENTAL PROTECTION AGENCY

14 By: Elizabeth J. Adams
15 Elizabeth J. Adams
16 Chief, Site Cleanup Branch, Superfund Division
17 EPA, Region 9

Date: November 21, 2005

EPA Region 9 Contacts:

Primary OSC

Susan Keydel
Superfund Division
Mailcode SFD 7-1
US EPA, Region 9
75 Hawthorne Street
San Francisco, CA 94105
(415) 972-3106

Alternate OSC

Jeff Dhont
Superfund Division
Mailcode SFD 7-1
US EPA Region 9
75 Hawthorne Street
San Francisco, CA 94105
(415) 972-3020

Counsel

John Lyons, Assistant Regional Counsel
Office of Regional Counsel,
Mailcode ORC3
EPA, Region 9
75 Hawthorne Street
San Francisco, CA 94105
(415) 972-3889

ATTACHMENT A: US. EPA REGION 9, CERCLA REMOVAL ACTION MEMORANDUM
DATED NOVEMBER 2, 2005



UNITED STATES ENVIRONMENTAL PROTECTION AGENCY
REGION IX
75 Hawthorne Street
San Francisco, CA 94105

MEMORANDUM

SUBJECT: REQUEST FOR TIME CRITICAL REMOVAL ACTION

For Soil Piles and Excavations at 20846 Normandie Avenue
Historical Stormwater Pathway – South (OU 6)
Montrose Chemical Superfund Site, Los Angeles County, CA
Site ID Number: 0926

FROM: Susan Keydel, Remedial Project Manager, Site Cleanup Section 1, SFD-7-1 *SK*

THROUGH: Roberta Blank, Chief, Site Cleanup Section 1 *R Blank*

TO: Elizabeth Adams, Chief, Site Cleanup Branch, Superfund Division

DATE: November 2, 2005

I. PURPOSE

The purpose of this Action Memorandum is to request and document approval of the proposed time-critical removal action described herein. Under the Removal Action requested by this Memorandum, excavated soil held in soil piles at 20846 Normandie Avenue, in Los Angeles County, California (near Torrance California) will be transported off-site to an appropriate permitted hazardous waste landfill. The 20846 Normandie Avenue property is owned by Mr. Ronald Flury and occupied by Ecology Control Industries, Inc. (ECI); this property is referred to hereafter as the "ECI Property." The excavated soils, estimated to include up to 3000 tons of soil, contain elevated concentrations of several hazardous substances including dichloro-diphenyl-trichloroethane (DDT) and other pesticides, total petroleum hydrocarbons (TPH), and polychlorinated biphenyls (PCBs). EPA believes that the DDT and other hazardous substances were transported to this location by way of the historical stormwater drainage pathway that conveyed contaminants from the Montrose Chemical Corporation of California (Montrose) former DDT manufacturing plant, which was located at 20201 Normandie Avenue, in Los Angeles County, California. The proposed action will address the potential threat to public health and the potential release or threat of release of contaminated soil from the numerous large soil piles (source area), as described in greater detail in this Action Memorandum.

II. SITE CONDITIONS AND BACKGROUND

Category of Removal:	Time Critical
Site Name:	Montrose Chemical Superfund Site
Site Status:	NPL
CERCLIS ID:	CAD008242711

A. Background

From 1947 until 1982, Montrose manufactured the insecticide dichlorodiphenyltrichloroethane (DDT) at a manufacturing plant located at 20201 Normandie Avenue in Los Angeles County, California (referred to hereafter as the former Montrose Plant Property). Production at the former Montrose Plant Property ranged from approximately 1 million to 8 million pounds per month of technical grade DDT as the manufacturing process changed throughout the 35 years of plant operation. In 1962, production reached 5.5 to 6.0 million pounds per month of DDT. [1,2]

One of Montrose's parent corporations, Stauffer Chemical Corporation (Stauffer) was the owner of the former Montrose Plant Property. Stauffer leased the northern portion of the former Montrose Plant Property to Montrose beginning in 1947. On the southeastern portion of the former Montrose Plant Property, Stauffer operated a research facility and benzene hexachloride (BHC, or hexachlorocyclohexane) pilot plant where the pesticide Lindane (the *gamma* isomer of BHC) was produced from the early 1950s until 1963. Lindane production created a waste stream of alpha-, beta- and limited delta-BHC. In 1964, Stauffer dismantled the BHC plant and leased that portion of the former Montrose Plant Property to Montrose, which expanded its operations into this area. EPA's investigation of the Stauffer BHC operations is ongoing.

The use of DDT in the United States was banned in 1972 (except for use pursuant to special permits). Between the years 1972 and 1982, Montrose continued production of DDT at the former Montrose Plant Property for overseas markets. The DDT plant at the former Montrose Plant Property was closed in the summer of 1982, and during the remainder of 1982 and 1983, the plant was dismantled. The majority of the concrete footings were crushed, debris was buried in trenches on-property, and crushed concrete was used as a sub-base for grading and paving the former Montrose Plant Property with asphalt. The EPA did not approve the re-grading and paving as a response action.

Today, the former Montrose Plant Property and adjacent areas (i.e., the Jones Ditch, Los Angeles Department of Power and Water (LADWP) and Normandie Avenue Ditch) remain contaminated with DDT and other hazardous substances. Since approximately 1984, the former Montrose Plant Property has been kept asphalted and fenced. Response actions have also been implemented at portions of the Jones Ditch, LADWP Right-of-Way and Normandie Avenue Ditch to protect public health and prevent further release of DDT to the environment.

DDT and other substances related to the activities at the former Montrose Plant Property have entered the environment and are being addressed by EPA. Currently, EPA is investigating, and

where necessary, identifying and taking (or has taken) response actions for contamination related to the following aspects of the Montrose Chemical Superfund Site:

- Soils on and near the former Montrose Plant Property, focusing on commercial/industrial properties (Operable Unit 1, OU 1).
- Dense non-aqueous phase liquids (DNAPLs), primarily made up of DDT and chlorobenzene (one of the raw materials used in DDT manufacturing), in soil under the former Montrose Plant Property, extending down to depths of greater than 90 feet, into the upper groundwater units (OU 3).
- Dissolved groundwater contamination, which extends vertically through up to six hydrostratigraphic units and laterally (downgradient) over 1.3 miles from the former Montrose Plant Property (OU 3).
- Montrose-related contamination in the sanitary sewers, as a result of discharges to the sewer system during operations at the former Montrose Plant Property (Removal Action).
- Residential soils contaminated by aerial dispersion of DDT from the former Montrose Plant Property, and by fill materials deposited to those areas (OU 4).
- Montrose-related contamination in segments of the *historical* stormwater drainage pathway, addressed in this Action Memorandum and prior action memorandums, see below (OU 4 and OU 6).
- Montrose-related contamination in the *current* stormwater drainage pathway, including the Kenwood Drain, the Torrance Lateral, the Dominguez Channel and the Consolidated Slip (OU 2).
- Montrose-related contamination on the ocean floor off the coast of Palos Verdes, California ("Palos Verdes Shelf") discharged from the sanitary sewer outfall (OU 5).

B. Historical Stormwater Drainage Pathway

The historical stormwater drainage pathway that originated at the former Montrose Plant Property initially entered a drainage ditch on the west side of Normandie Avenue, crossed Normandie Avenue and continued south to and beyond Torrance Boulevard, subsequently passing through what is now the eastern portion of the ECI Property. The ditch then continued easterly through and beyond the adjacent Royal Blvd Disposal Site.

EPA's 1998 *Final Remedial Investigation Report for the Montrose Superfund Site* [1] shows the components of the historical stormwater pathway as continuous from the former Montrose Plant Property to, and beyond, the ECI Property. Stormwater leaving the former Montrose Plant Property would collect just beyond the southeastern boundary of the former Montrose Plant Property, an area referred to as the Normandie Avenue Ditch Ponding Area. From there, stormwater was conveyed across Normandie Avenue via an 18-inch culvert, and entered an "unimproved channel" that passed by houses along 204th Street [3], and continued south via a

ditch along the west side of Kenwood Avenue (a.k.a. the Kenwood Ditch), to Torrance Boulevard (Figure 1). Stormwater then crossed under Torrance Boulevard and entered the area now occupied by the ECI Property. Generally, beginning south of Torrance Boulevard, this historical stormwater drainage pathway broadened into a slough, or swale.

Historical topographic maps and aerial photographs from as early as 1916 show a continuous pathway of drainages and sloughs along Kenwood Avenue, and south of Torrance Boulevard, through the area currently identified as the ECI and Royal Boulevard Disposal Site properties, and beyond. An analysis of historical aerial photographs was conducted to identify the extent of that historical stormwater pathway within the ECI Property and the adjacent Royal Boulevard Disposal Site, by identifying ditches, ponding areas, and potential riparian and wetland vegetation. Figure 2 shows EPA's understanding of the extent of the historical stormwater pathway within and near the ECI Property, based on the analysis of historical aerial photographs. [4]

During heavy rains, significant volumes of stormwater from the former Montrose Plant Property would enter the stormwater pathway as sheet flow, transporting DDT on the ground from grinding, formulations and transport and storage operations. Montrose estimated that during a 1-inch rainfall, a minimum of 224,000 gallons would leave the southeast corner of the former Montrose Plant Property and enter the drainage ditch. [5]

Additionally, Montrose wastewater periodically entered the surface water drainages when the industrial process wastewater system would back up. Between 1947 and approximately 1953, the former Montrose Plant Property had a series of concrete or brick in-ground pipelines that conveyed wastes to an unlined surface impoundment (a.k.a. the wastewater pond). Acidic wastewater along with other miscellaneous drainage from the plant (such as stormwater runoff from the Central Process Area and process cooling water) flowed to the wastewater pond. Prior to discharge of these industrial wastewaters to the sanitary sewer system, the pH of the wastewater pond was adjusted by passing wastewater through a "lime bed" consisting of sugar lime. The neutralized wastewater was then discharged from the pond through a 10-inch diameter pressurized line that tied into the Los Angeles public sewer system, west of the former Montrose Plant Property near Western Avenue.

According to City of Los Angeles Department of Public Works reports, this early industrial wastewater system periodically backed up, causing wastewater to overflow onto the former Montrose Plant Property and enter the surface water drainage pathway. A February 24, 1953 memorandum from the City of Los Angeles Department of Public Works [1] documents that Montrose acidic wastes had ponded at both the southeast fence boundary of the former Montrose Plant Property and at the corner of 204th Street and Kenwood Avenue (previously referred to as Florence and Maple Streets), a portion of the historic stormwater pathway.

In the late 1960's and early 1970's, the Los Angeles County Flood Control District installed a buried concrete stormwater drainage system referred to as Project 685, Kenwood Avenue - Supplemental. The new system, Project 685, replaced both the ditch along Kenwood Avenue and the slough that was present in what is now the ECI Property and beyond. The Los Angeles County Flood Control District continues to have an easement for Project 685 that passes through

the properties north of Torrance Boulevard. South of Torrance Boulevard, easements also exist along the eastern side of the ECI Property and through the Royal Avenue Disposal Site property, and beyond, through the area of the historical ditch and slough.

Installation of the buried stormdrain for Project 685 required excavation of existing soil in order to place the large, concrete box drain. Construction drawings for the segment of Project 685 in what is now the eastern portion of the ECI Property show a ground elevation of approximately 16 to 17 feet mean sea level (msl) prior to construction [6], believed to be the low point of the historical stormwater drainage flow path. The Project 685 box-drain (8 ft wide and 12.5 feet high) is shown on the as-built drawings as having the invert (interior bottom of the drain) at approximately 11 feet msl, and the top is shown as having one foot of fill above the box drain for a finished surface elevation of 26.5 ft msl within the ECI Property.

In 1998, the owner of the ECI Property had construction drawings prepared for re-grading the northern portion of the ECI Property [7]. Those drawings show the soil elevation exceeded 40 feet msl at the western edge of the northern parcel, and was 35 to 36 feet msl along the eastern edge of the ECI Property, with a low of 31 feet msl in the northeast corner along the drainage easement. The ECI Property was re-graded, pushing soil from west to east to generally level the property. Soil from the embankment along Torrance Boulevard and a large mound of soil on the northeastern portion of the ECI Property (created from grading the southern parcel of the ECI Property) were used for the re-grading [8]. Post-grading, the surface elevation of the ECI Property transitions smoothly from approximately 40 ft msl at the western edge of the ECI Property to approximately 36 ft msl along the eastern edge of the ECI Property above the LA County drainage easement. Residential properties immediately east of the ECI Property are shown as having elevations between approximately 33 and 36 ft msl.

Figure 3 shows a conceptual model of EPA's understanding of the history of the ditch elevation relative to the placement of the Project 685 box drain and the current ground elevation adjacent to and above the LA County drainage easement on the ECI Property.

This Action Memorandum requests approval for a removal action addressing soil that has been excavated from the historical stormwater pathway portion of the ECI Property. This excavated soil contains Montrose-related contaminants as well as other hazardous substances. This removal action will also address the 5 open excavations at the ECI Property that are located near the soil piles.

C. Site Description

1. Physical Location

The 20846 Normandie Avenue property is a commercially zoned property owned by Mr. Ronald J. Flury, and occupied by Ecology Control Industries (ECI). The ECI Property is located near the intersection of Torrance Boulevard and Normandie Avenue, in Los Angeles County, California

(Figure 1), approximately 1 mile south of the intersection of the San Diego Freeway (I-405) with Interstate 110. The area is densely developed with a mixture of commercial/industrial and residential land use. Immediately adjacent to the ECI Property are several small commercial businesses (northwest), a commercial business development (south), and six (6) residential properties (single-family and multiple-family residential units) adjoining the ECI Property to the east with additional homes along Raymond Avenue. Additional residential areas are located to the north across Torrance Boulevard (4-lane road), and to the west across both Normandie Avenue (a 4-lane street) and a wide grassy median.

The ECI Property is within the City of Los Angeles area known as the Harbor Gateway Community that serves as a link between the main area of the City of Los Angeles and the City's Port and the communities of San Pedro, Wilmington and Harbor City. In the vicinity of the ECI Property, there are recent and ongoing development activities, as well as long-term business enterprises.

2. Site Characteristics

The ECI Property is currently occupied by ECI, a California-registered hazardous waste transporter that *"utilizes the Property as a dispatch yard for its truck fleet and for maintaining roll-off bins, containers, and other environmental use equipment and vehicles. The [ECI Property] operates as a 24-hour a day secured facility and is surrounded by a concrete block wall and chain-link fencing. One office building is located on the [ECI Property]. Minor maintenance of containers may be performed at the [ECI Property], such as repairing or painting roll-off bins. ECI operates as a hazardous waste transporter under EPA Identification # CAD982030173 and the [ECI Property] operates as a hazardous waste generator under EPA Identification # CAL000278605."* [7]

A Preliminary Assessment [8] was completed by EPA in January 1993 for Akzo Coatings Inc., the previous owner of the Property. Mr. Flury purchased the southern portion of the Property, nearly 5 acres, from Akzo Coatings, Inc. in 1992. The eastern portion of this parcel was not paved at that time. Several years later, Mr. Flury purchased the 2.7 acres immediately north (the northern parcel) from Akzo Coatings, Inc. This northern parcel had reportedly been used only for parking, and contained a "large pile of soil which was generated during surface grading" of the southern parcel.

While owned by Akzo Coatings Inc., two tank farms were reportedly located on the Property along the southern boundary. The tanks were used to store petroleum-based solvents. At the time those tanks were removed, a release of toluene from one of the tanks was discovered. This release required soil and groundwater investigations, and the installation of a soil vapor extraction (SVE) system. Akzo operated the SVE system for several years while the Property was owned by Mr. Flury. According to Mr. Flury [9], part of the ECI Property transfer agreement was to concrete or asphalt the ECI Property to facilitate SVE system operations. Prior to the installation of the SVE system, Mr. Flury leveled and concreted the western portion

of the parcel; ECI occupied the ECI Property while the SVE system was running. On July 22, 1996, the California Regional Water Quality Control Board (RWQCB) issued a closure letter confirming the completion of the investigation and remedial action for the underground storage tank(s) formerly located at the Property.

Mr. Flury continues to own and ECI still occupies these parcels.

3. Removal Site Evaluation

In May and June 2005, EPA learned that a Phase I Environmental Site Assessment and Phase II sampling had been done at the ECI Property to prepare for property transfer for proposed residential development. However, elevated DDT concentrations had been detected in soil during these sampling activities. [10] As later reported by Haley and Aldrich [7], Phase II activities were conducted to *"confirm previous investigation findings, to perform a gap analysis based on ECI activities conducted at the Site since their operations commenced in the mid-1990s, and to investigate findings identified during the Phase I."* Soil and soil-gas samples were collected at 15 locations across the 7.3-acre Property on February 7 and 8, 2005; additional soil sampling was conducted on March 23, 2005, generally using a 150 by 150 foot grid. Samples were analyzed for pesticides and PCBs. On April 12 and 13, 2005, 24 additional soil borings were advanced and sampled to further delineate pesticides and PCBs along the eastern portion of the ECI Property. Between February 7 and June 9, 2005, over 200 soil samples were collected at the ECI Property, with sampled depths ranging from just below ground surface (bgs) to approximately 15 feet bgs. This activity was performed without regulatory oversight.

During a June 13, 2005 conference call with Mr. Flury and Mr. Peter Goldenring, counsel to Mr. Flury [11], EPA asked the owner to stop excavation activities and securely cover piles of soil at the ECI Property. On June 14, 2005, EPA issued a Request for Information letter to Mr. Flury [12] under Section 104(e) of CERCLA. Three information submittals [7, 13, and 14] were received in partial response to EPA's 104(e) letter. Additionally, EPA has had numerous conference calls and meetings with Mr. Flury and his representatives. From these communications, EPA learned more about the known extent of DDT and other contaminants in soil at the ECI Property, and about additional activities that have occurred since sampling began. EPA's current understanding is summarized below.

Analytical results of soil samples collected as part of the Phase I and II studies conducted for the ECI Property in the spring of 2005 identified elevated concentrations of several chemicals. Contaminants having concentrations exceeding Federal and/or State regulatory limits include:

- DDT - detected at a maximum reported concentration of 325 ppm DDT (sum of 4,4'-DDT, 4,4'-DDE, and 4,4'-DDD). Samples containing elevated DDT concentrations were collected from the eastern area of the ECI Property. Approximately 35 samples had soil DDT concentrations above 10 ppm (the upper end of the regional background range as determined by EPA [15]).

- Chlordane - detected at a maximum reported concentration of 3.5 ppm from soil collected along the easternmost portion of the Property.
- PCBs - detected at a maximum concentration of 23.1 ppm (sum of Aroclors 1254 and 1260).

In addition, total petroleum hydrocarbons (TPH) were detected at concentrations up to 28,900 ppm (sum of oil and diesel fractions); and benzene hexachloride (BHC), a hazardous substance related to past operations at the former Montrose Plant Property, was also found in soil samples (maximum concentration of 0.019 ppm as beta-BHC).

To address soils with elevated chemical concentrations, *“ECI performed excavations and stockpile activities and Haley & Aldrich provided oversight of the excavation and conducted confirmation soil sampling activities.”* Excavations were conducted between March and June 2005 (March 17, 2005; May 17, 18, 26, and 27, 2005; and June 2, 3, 8, and 9, 2005). [7] These activities were performed prior to EPA’s involvement.

Initially, excavated soil was reportedly stored in roll-off containers next to the open excavations they came from. However, as roll-off containers were needed for other uses, soil was transferred to piles. Soil from excavation SB-03 (see Figure 4), where PCBs had been detected, was allegedly kept separate from other soil, while the remainder of excavated soil was co-mingled into the piles currently on the Property [16]. However, during a visit to the ECI Property on October 26, 2005, contractors for EPA were informed that soil from the ECI Property excavations is not currently held in bins. [17]

In June of 2005, ECI transported a total of 512 tons of excavated soil to American Remedial Technologies (ART) located in Lynwood, CA (159 tons on June 3, 2005 and 353 tons on June 10, 2005). These activities were performed prior to EPA’s involvement; EPA was not aware of and did not approve of this action. Based on copies of the waste manifests provided to EPA, the soil was characterized as “non-hazardous waste solid (soil contaminated with hydrocarbons).” [7] Soil taken to ART was reportedly taken from the large soil pile adjacent to excavations associated with soil borings SB-05, SB-20 and SB-35. Specifically, soil was reportedly taken from the north end of the pile along the back (eastern) side, immediately south of the storm grate and adjacent to excavation SB-05. [16] Based on the concentration of hazardous substances in soil prior to excavation, EPA determined that the excavated soil is hazardous waste (see below). However, the ART facility in Lynwood CA is not permitted by the State or EPA to receive CERCLA or RCRA waste. The California Department of Toxic Substances Control (DTSC) has been notified of soil disposed of at ART.

The estimated volume of soil present in the soil piles was twice estimated by the Property owner and provided in writing to EPA. Initially, the volume was reported to be 200 to 250 cubic yards [18]. Later, the Property owner informed EPA that the 250 cubic yard estimate was incorrect, so EPA requested a correct volume estimate. A subsequent estimate was given at approximately 190 loads (presuming 20 to 25 tons per load) [19]. However, in subsequent communications, the owner verbally revised the estimated soil volume to be only 100 loads (2000 to 2500 tons, assuming 20 to 25 tons per truck load). Confirmatory estimations were conducted on behalf of

EPA. The volume of soil that remains on the Property was determined to be approximately 100 to 120 loads, or 2000 to 3000 tons, in soil piles covered by plastic sheeting and secured with sand bags. [17]

4. Release or threatened release into the environment

The table below summarizes chemicals detected in samples collected from soil prior to excavation. Soil at and surrounding the sample locations was subsequently excavated by the ECI Property owner. With the exception of soils from the SB-03 excavation, soils were reportedly excavated and mixed with other excavated soils. [16]

A statistical evaluation [21] of sampling data from the ECI property [7] was conducted for EPA. An evaluation of spatial distribution of contaminants in soil boring samples showed:

- Soils sampled and excavated within the area of the historical stormwater pathway are statistically different in total DDT concentrations from those soils from the remainder of the ECI Property (e.g., areas outside of the extent of the historical stormwater pathway had a mean concentration of less than 1 ppm total DDT while the excavations areas, all within the historical stormwater pathway, had mean concentrations ranging to 18.7 ppm total DDT).
- The presence of elevated concentrations of chlordane did not co-occur with elevated DDT findings (i.e., the presence of chlordane-related compounds inversely correlates with the presence of elevated DDT).
- A correlation was seen between the occurrence of beta-BHC and elevated total-DDT (total-DDT greater than 10 ppm, the upper range of the regional background values). However that correlation was only moderately strong. Correlations were not evident with other BHC isomers or when total DDT was at background concentrations.

Further, data characterizing two of the excavation areas (SB-05 and SB-20) had 95 percentile upper confidences on the mean (95% UCL) values exceeding 10 ppm.

Six "hazardous substances" (DDT, DDE, DDD, chlordane, dieldrin and PCBs), shown in bold type on Table 1, are "hazardous substances" as defined by Section 101(14) and Section 101(33) of CERCLA, 42 U.S. C. Section 9601(14), and 40 C.F.R. Section 302.4 and Table 302.4.

- DDT and chlordane, present in soil that was subsequently excavated, was reported at concentrations exceeding the listed total threshold limit concentrations (TTLCs) specified in 22 CCR Section 66261.24 for disposal of organic persistent and bioaccumulative toxic substances. The excavated soil has been classified by EPA as hazardous waste pursuant to the State of California characteristic for toxicity, and therefore while in the State of California (including while at the ECI property), soil in the piles must be managed as hazardous waste.

- Substantial evidence supports the continuity of the historical stormwater pathway from the former Montrose Plant Property to and through the ECI Property, with hazardous substances (e.g., total DDT and isomers of BHC) released by Montrose and/or Stauffer Chemical from the former Montrose Plant Property into this pathway [17]. EPA has concluded that DDT and BHC released from the former Montrose Plant Property came to be located on the ECI Property via flows of surface water runoff and process wastewater from the former Montrose Plant Property into the historical stormwater pathway. Therefore, the excavated soils must also be managed under the CERCLA Off-Site rule, 42 U.S.C. Section 9621(d)(3).

Table 1			
Summary of Hazardous Substances Detected in pre-Excavated Soil at ECI			
Hazardous substance	CASRN	UTS	Maximum Detected Conc.
alpha-BHC	319-84-6	0.066 ppm	0.0011 ppm
beta-BHC	319-85-7	0.066 ppm	0.019 ppm
delta-BHC	319-86-8	-	0.0041 ppm
gamma-BHC	58-89-9	0.066 ppm	0.0062 ppm
Chlordane (a)	57-74-9	0.26 ppm	3.5 ppm
DDD	72-54-8	0.087 ppm	19 ppm
DDE	72-55-9	0.087 ppm	8.7 ppm
DDT	50-29-3	0.087 ppm	310 ppm
Dieldrin.	60-57-1	0.13 ppm	0.18 ppm
PCBs	1336-36-3	10 ppm	23.1 ppm
"CASRN" - Chemical Abstracts Service Registry Numbers for each hazardous substance.			
"UTS" - Universal Treatment Standard; the constituent-specific treatment standards found in §268.48			
(a) Chlordane includes alpha & gamma isomers, and technical mixture and metabolites.			

In a letter to the owner of the ECI property on July 25, 2005 [22], EPA stated that the DDT and BHC in the historical stormwater drainage pathway north of Torrance Boulevard are related to the Montrose Chemical Superfund Site, and thus are federally listed hazardous wastes pursuant to RCRA, with a classification of DDT as U061 and BHC as U129. This statement was made prior to EPA receiving and reviewing additional information for the ECI Property conditions and history.

Information available at this time is inconclusive regarding whether the DDT and BHC released from the former Montrose Plant Property and now found in the excavated soils at the ECI Property originated from RCRA listed sources at the former Montrose Plant Property. As described above, subsequently provided data characterizing the ECI Property and the soil piles was reviewed and the correlation of DDT and BHC was found to not be strong enough to be conclusive. Statistical evaluations of submitted data show only a moderate correlation between beta-BHC and elevated total-DDT. EPA has not completed its evaluation of the historical stormwater pathway south of Torrance Boulevard. However, consistent with EPA guidance on

management of CERCLA wastes [23], EPA is assuming that the soil piles do not contain a listed RCRA hazardous waste, and therefore, are not federally regulated hazardous waste under RCRA. Based on the above, the soil piles are still subject to California RCRA requirements for management at the ECI Property and disposal of the excavated soil within California.

The soil piles contain elevated concentrations of hazardous substances, and so EPA is determining that they must be disposed of in a Subtitle C hazardous waste landfill. However, the proposed removal action will not require treatment prior to land disposal under federal RCRA requirements. These determinations are limited solely to the soils which are the subject of this Action Memorandum.

The presence of soil piles containing hazardous substances at the ECI Property presents both an imminent and substantial endangerment to public health (as defined in CERCLA, 42 U.S.C. Section 104(a)(1)), and an actual or threatened release of hazardous substances into the environment (as defined by Section 101(22) of CERCLA, 42 U.S.C. Section 9601(22)). Elevated levels of hazardous substances present in these soils, stored above ground, could potentially migrate with prevailing winds (from the west) to the residential properties immediately east of the ECI Property, if not properly managed.

Further, the imminence of the rainy season for the Los Angeles area presents an additional threat of release. Precipitation and subsequent sheet flow across the ECI Property may cause soil containing hazardous substances to migrate off-Property or be released from the ECI Property to the storm grate on-Property, which drains into the Project 685 stormwater drainage system. Stormwater in the Project 685 drain (a.k.a. Kenwood Drain) is discharged to the Torrance Lateral, an open stormwater drainage, which enters the Dominguez Channel, and ultimately flows to the Consolidated Slip, a part of the Los Angeles/Long Beach Harbor. Excavated soil at the ECI Property contains total-DDT at concentrations exceeding 100 times the concentration known to exist in the current stormwater drainage pathway. Potential releases from the ECI Property to the current stormwater drainage pathway could result in significant ecological risk from exposure to those contaminated soils.

5. NPL Status

The Montrose Chemical Superfund Site was placed on the NPL in 1989.

6. Maps, Pictures and other Graphic Representations

(See attached.)

D. Other Actions to Date

1. Previous Actions

Beginning in 1999 and continuing through 2002, EPA conducted investigations of soils and homegrown produce in residential areas surrounding the former Montrose Plant Property, and conducted a removal action at 23 residential properties along the segment of the historical stormwater pathway north of Torrance Boulevard. [24]

As part of this work, in 1999 during Phase I of the investigation, EPA collected background surface soil samples, from areas in several directions from the former Montrose Plant Property, including cross-wind and up-wind directions. EPA determined that the regional background concentrations of total DDT in surface soil (up to 2 to 4 miles from the former Montrose Plant Property) averaged between 1 and 3 ppm, and ranged up to about 10 ppm.

On June 8, 2001, EPA signed an Action Memorandum [2] for removal of soil from yards on the west side of Kenwood Avenue, between 204th Street and Torrance Boulevard; this effort is referred to as the Kenwood Storm Water Drainage Pathway Removal Action. The goals of this action were to remove soil in residential properties which contained Montrose-related contamination from the historical stormwater pathway, and thereby reduce any present or future significant health risk to residents related to DDT exposure, above the levels already present from soils in the South Los Angeles area.

During excavation for remediation at homes along the west side of Kenwood Avenue, a layer (and layer fragments) of depositional material containing high levels of DDT was clearly visible in subsurface soil at three properties. This depositional layer is believed to have been the bottom of the former stormwater ditch along the historical stormwater pathway. The southernmost residential property where depositional layer was discovered on Kenwood Avenue was only three lots north of the ECI Property across Torrance Boulevard. On November 2, 2001, EPA issued an Amendment to the Action Memorandum [3] to address the identification and removal of the depositional layer (e.g., protocols to adjust the excavation approach and depths), including under structures. This resulted in deeper excavations at several properties.

The presence of this layer along the historical stormwater pathway is consistent with the conclusion that process wastewater and stormwater from the former Montrose Plant Property entered and traveled down the historic stormwater pathway along Kenwood Avenue. The Administrative Records for the Kenwood Removal Action contain documents considered by EPA in reaching that conclusion. A detailed discussion addressing material excavated from the yards and the depositional layer can be found in the removal action Completion Report. [15]

2. Current Actions

No actions to address the soil piles have yet been undertaken at the ECI Property, beyond the excavation and disposal work conducted by the ECI Property owner, and control actions required of the ECI Property owner by EPA to mitigate potential wind erosion, by covering of the soil piles with plastic sheeting secured by sand bags.

The actions presented for approval in this Action Memorandum (see Section V, below) are consistent with response actions selected by EPA for other aspects of the Montrose Chemical Superfund Site.

EPA prepared and distributed a fact sheet (on September 8, 2005) to the surrounding area property owners and residents, identifying the soil piles and potential subsequent sampling work at the ECI Property and possibly at adjacent residential properties. EPA has had one-on-one communications with several of the owner/occupants of the adjacent residences and businesses. The fact sheet was provided in both English and Spanish; and the door-to-door communications were conducted by a team fluent in both of these languages. EPA will continue to perform community outreach for this removal action. Information will be provided on a regular basis to keep the community informed of progress regarding this and other components of the Montrose Chemical Superfund Site.

3. Public Involvement

Within 60 days of the initiation of on-Property removal activities described in this Action Memorandum, EPA will publish a notice of availability of the associated Administrative Record, and provide a public comment period of at least 30 days.

E. State and Local Authorities Role

1. State and Local Actions to Date

DTSC is working with EPA as a support-agency on the Montrose Chemical Superfund Site. EPA has communicated with DTSC regarding the need for action related to the excavations and soil piles at the ECI Property. The State agencies have not taken separate response actions related to the current soil piles on the ECI Property.

2. Potential for Continued State/Local Responses

It is anticipated that the state agencies will remain in a support role to EPA, with EPA as the lead agency for the Superfund response actions at the ECI Property. On behalf of the State of California, DTSC has identified their preferences for the handling of the soil piles. Those preferences (see below) have been incorporated by EPA in this proposed removal action.

III. THREATS TO PUBLIC HEALTH OR WELFARE OR THE ENVIRONMENT, AND STATUTORY AND REGULATORY AUTHORITIES

A. Threats to Public Health or Welfare

Soil in the piles stored at the ECI Property contain hazardous substances which could pose an actual or potential human health risk. Residential properties are immediately adjacent to the ECI Property and particularly the portions of the ECI Property where excavations occurred and soil piles are stored. The eastern side walls of several of the excavations are less than 10 feet from the boundary with residential properties. Releases to residential properties could result in threats to public health.

The excavated soil piles at the ECI Property contain hazardous substances (based on results from *in situ* soil samples) including DDT, chlordane and PCBs. The EPA Region 9 Preliminary Remediation Goals (PRGs) corresponding to a one-in-a million cancer risk over a lifetime (30 year) exposure period are provided for comparative purposes.

- DDT – The maximum total-DDT value of 325 ppm was detected in soil excavated from the SB-05 area. Numerous samples from the ECI Property contained DDT results exceeding 10 ppm, particularly in soils excavated from nearest to the adjacent residential properties in the area of SB-05, SB-09 and SB-20. The PRG is 1.7 ppm for residential exposure and 7 ppm for industrial exposure. The DTSC Soil Screening numbers for DDT are 1.6 ppm under a residential scenario and 6.3 ppm for an industrial scenario. These values fall within the average background DDT concentration range for soil within the greater Los Angeles area. During the Kenwood Removal Action, EPA used a value corresponding to one-in-one-hundred-thousand (1×10^{-5}) cancer risk for a residential exposure scenario (17 ppm) to determine the need for remediation at residences.
- Chlordane – The maximum total-chlordane value of 4.45 ppm was detected in soil excavated from SB-32. The PRG is 1.6 ppm for residential exposure and 6.5 ppm for industrial exposure. The DTSC Soil Screening numbers for chlordane are 0.43 ppm under a residential scenario and 1.7 ppm for an industrial scenario. Chlordane was detected at or above 0.43 ppm in two samples from the excavated area around SB-32.
- PCBs (Aroclors 1254 and 1260) – The maximum total-PCBs value of 23.1 ppm was detected in soil excavated from SB-35. The PRG is 0.22 ppm for residential exposure and 0.74 ppm for industrial exposure. The DTSC Soil Screening numbers for PCBs are 0.089 ppm under a residential scenario and 0.3 ppm for an industrial scenario. PCBs were detected at or above these levels in five samples collected from the excavated soil areas around SB-35, SB-20, and SB-3.

Soils from these piles, while covered with plastic sheeting, could potentially migrate due to wind

or water erosion. The pending rainy season for southern California (>85% of precipitation falls in the period from November through March) and the resultant sheet flow across the ECI Property could cause soils to migrate off-Property and/or into the current Project 685 Stormwater Drainage system (OU 2).

The most significant pathway for human exposure to DDT in soils is by ingestion. Ingestion can occur when a person brings hand to mouth after contact with soils or dust contaminated with DDT, or when a person breathes dust containing DDT, and dust in the throat is swallowed.

This removal action is proposed to abate, prevent, minimize, stabilize, mitigate or eliminate the imminent and substantial endangerment to public health resulting from the actual or potential release of hazardous substances into the environment presented by the soil piles at the ECI Property.

B. Threats to the Environment

The soil piles could potentially erode under the forces of wind or rain. If not removed, contaminated soil could flow into the on-Property stormwater grate which is directly connected to the Project 685 box drain. The Project 685 system discharges to the Torrance Lateral, which feeds into the Dominguez Channel and ultimately discharges to the Consolidated Slip in the Los Angeles/Long Beach Harbor, potentially impacting ecological receptors.

In 1998, the State of California identified the Consolidated Slip as a toxic hotspot based on the findings of an ecological risk assessment conducted under the Bay Protection and Toxic Hot Spots Program. As part of the Montrose Chemical Superfund Site Remedial Investigation activities, EPA is conducting an Ecological Risk Assessment for Montrose-related contaminants in the current Stormwater Pathway (OU 2), including the Project 685 segment (a.k.a. Kenwood Drain).

IV. ENDANGERMENT DETERMINATION

Actual or threatened releases of hazardous substances found in the excavated soils at the ECI Property, if not addressed by implementing the response action selected in this Action Memorandum, may present an imminent and substantial endangerment to public health, or welfare, or the environment.

V. PROPOSED ACTIONS AND ESTIMATED COSTS

Under this Action Memorandum, the following removal action will be performed.

A. Proposed Actions

1. Proposed Action Description

Under this removal action, the soil piles will be hauled from the ECI Property, and disposed of in accordance with the requirements of this Action Memorandum, as well as with all appropriate and relevant or applicable State and Federal legal requirements (see Section V.A.4, below). In addition, the open excavations are to be lined (to distinguish the area of clean fill from surroundings), backfilled with clean fill, and covered with asphalt or concrete. This proposed action provides the most timely and effective response for removing the source of actual or potential releases, thereby eliminating the threat of release and potential for endangerment to public health and the environment. The components of this removal action are described below.

a. Soil hauling

Soil hauling will be performed to remove all currently excavated soil from the ECI Property. This volume is estimated to be as much as 120 loads (3000 tons).

No additional soil may be excavated at the ECI Property or in the vicinity of the historical stormwater pathway without prior EPA approval.

Excavated soil will be loaded, covered and transported by truck in accordance with all applicable statutes and regulations, including SCAQMD Rule 403, and DTSC and Department of Transportation (DOT) requirements for hauling hazardous waste to a permitted hazardous waste facility. EPA has determined that to avoid a future threat to public health and the environment presented by the hazardous substances present in the soil, the soil must be disposed of at a facility permitted and federally approved for long term management of hazardous waste (Subtitle C facility). Furthermore, the hazardous waste facility where the soils are disposed of must meet the requirements of and be in compliance with the CERCLA Off-Site Policy, 42 U.S.C. Section 9621(d)(3) and implementing regulations, 40 C.F.R. Section 300.440.

b. Excavation Backfilling

Open excavations at the ECI Property will be backfilled in accordance with the following provisions:

- Backfill material brought to the Property will be pre-tested at a minimum for pesticides, volatile organics (VOCs), semi volatile organics (SVOCs), metals, polycyclic aromatic hydrocarbons (PAHs), and BTEX (benzene, toluene, ethylbenzene, and xylene) compounds. Imported soil will be obtained from an area which, based on knowledge of its history, is not located in a known industrial or agricultural area. Backfill material will meet EPA Region 9 Soil Preliminary Remediation Goals (PRGs) for residential exposure, with respect to all contaminants

tested, except for arsenic, which will meet a standard of 10 ppm (the value found by the Del Amo Superfund Site Human Health Risk Assessment to be the maximum background value for arsenic in local soils). Sampling results for the backfill material will be presented to EPA for review and approval prior to importing such soil for use.

- Excavations will be lined with a durable liner or geotextile to segregate ECI Property soil from clean backfill. (This is necessary as EPA is separately preparing for additional investigation of *in situ* soil at the ECI Property, as part of additional investigation activities for the Historical Stormwater Pathway-South, for the Montrose Chemical Superfund Site.)
- Backfilling will be conducted in accordance with local, State and Federal requirements and any requirements to be provided by the Los Angeles County Public Works Department for compaction and loading above the Project 685 box drain, which has been exposed by the on-Property excavations.
- Backfilled excavations will be covered with asphalt or concrete to prevent contaminant migration to the clean backfill area.

c. Air Monitoring during Soil Loading and Excavation Backfilling

Wind erosion controls will be in place and properly utilized during all phases of this removal action. Potential for generation of particulate matter by activities related to this removal action (e.g., migration from the work area, including soil piles, excavations and other sources of fugitive dust) will be minimized in accordance with the following provisions:

- To prevent emission of fugitive dust, SCAQMD Rule 403 for Fugitive Dust will be implemented, including maintaining daily records of activities and using best available control measures (Table 1 of the Rule). In accordance with Rule 403, site controls and practices will be implemented to limit the potential for and amounts of dust generation. These include covering exposed soil areas when not in active use, covering soil stockpiles, reducing vehicle speeds, and utilizing water sprays as necessary (e.g., in roads, work areas, etc.). Additionally, use of wind screens around the work area, at the down wind property boundary will be used to prevent release of fugitive dust to adjacent properties.
- In accordance with Rule 403 subparagraph (d)(3), PM₁₀ levels will be monitored at the upwind and downwind edges of key activities, no farther than the property boundary. Particulate monitoring will involve daily real-time monitoring performed using a MIE dataRAM Model pDR-1000, or equivalent. The dataRAM uses a passive sampling technique and light scattering photometer to determine particulate concentrations. For each day of monitoring and at regular intervals during each day, the particulate data from downwind monitors will be compared with the data from the background (upwind) monitor and

compared to EPA-specified action levels.

- In the event that air monitoring action levels are exceeded or if readings indicate a significant increase in upwind/downwind readings, or visible dust related to site operations is observed, dust control measures will be implemented. Such measures may include water spray, modification of work procedures, and/or suspension of work. If such measures do not result in reductions to below the action levels, Rule 403 contingency control measures (Table 3) will be implemented (despite non-qualification of this work as a "large operation"), including stopping work pending further evaluation of work practices and additional control measures.
- A dust control supervisor will be identified prior to the commencement of work, and will be responsible for implementing sufficient dust control and mitigation measures to ensure daily compliance with Rule 403 and additional requirements, as specified in this removal action Memorandum.

d. Surface Water Runoff and Releases to the Stormdrain

To prevent releases of soil and hazardous substances from entering the current Project 685 stormwater drainage, or being transported off-Property via surface water run-off, the following measures will be implemented to prevent any releases to the storm drain or from the Property:

- Berming at the storm grate and down-gradient Property boundary with absorbent/adsorbent booms;
- Use of filtration devices (e.g., hay bails) to filter suspended sediments from stormwater; or
- Collection of surface water to prevent releases from the ECI Property, followed by sampling to determine appropriate disposal.

Additionally, barriers (e.g., rubber storm drain mats) will be used during soil handling in dry weather to prevent releases of hazardous substances into the on-Property storm grate.

Preventative and stabilization measures will be put into place in the first week of implementation of this Removal Action.

e. Restoration of Damage to other Properties

Following completion of soil removal and excavation backfilling, any damage to adjacent properties will be repaired. Damaged property will be restored, reinstalled, or replaced in-kind if reinstallation is not possible. Items to be restored under this Action Memorandum may include, but are not limited to features along the Property boundary with the residences, including: fencing, decorative walls, retaining walls, plantings, etc. Restorations will be conducted at a minimum to a level equal to the quality of the damaged items, and performed in accordance with current local building codes and requirements in effect at the time of the removal action.

f. Other

Soil hauling will be performed to remove all excavated soil present at the ECI Property as of the date of this Action Memorandum. No additional soil may be excavated at the ECI Property or in the vicinity of the historical stormwater pathway without prior EPA approval.

2. Contribution to Remedial Performance

EPA is conducting remedial work (e.g., investigation, treatability study, design) for various operable units of the Montrose Chemical Superfund Site, including the Historical Stormwater Pathway-South (OU 6) and the Current Stormwater Pathway (OU 2), separately from the scope of this removal action. The need for long-term remedial actions for the Historical Stormwater Pathway-South, if any, will be identified based on information including the results of further investigation.

3. Description of Alternative Technologies

Alternatives to the actions proposed in this Action Memorandum were considered by EPA, and included: (a) using engineering controls to secure the soil piles from wind and/or rain erosion for the duration of the winter, and (b) re-placement of excavated soil into the open excavations.

EPA concluded that soil piles could not be adequately secured for the duration of the winter, to effectively prevent a release of soil or hazardous substances from the soil piles. Precipitation in the Los Angeles area averages 11 inches between November and March. Further, sheet flow from the bulk of the ECI Property (over 7 acres) would be substantial, and the soil piles are currently situated adjacent to the only stormwater drainage grate on the ECI Property. The soil piles would have to be protected from any stormwater runoff (e.g., by diverting runoff around the piles). Further, this alternative does not provide adequate prevention of potential release of stormwater to the adjacent properties (i.e., residential yards and the Royal Blvd Site). This alternative was rejected because it does not provide an effective or permanent response, nor does it afford adequate protection against threat of release, or protection of human health and the environment.

Re-placement of excavated soil into the open excavations was also considered, but rejected as an alternative action.

- This alternative is not protective of human health and the environment as a long term solution.
- Re-placement would likely be an interim solution, as soil beneath the refilled excavations

could not be readily sampled during characterization of the Historical Stormwater Pathway-South, without again excavating the soil.

- Re-placement of the soil would activate additional regulatory requirements. PCBs present in the excavated soil are present from a source exceeding 50 ppm (reportedly a transformer knocked to the ground when a pole at the ECI Property was hit by a truck). In accordance with TSCA regulations (40 C.F.R. 761.61), placement of the soil into the excavations for a period of 180 days or more would constitute a permanent remedy, requiring at a minimum: additional characterization/verification of the extent of PCBs in surrounding soil; fencing and posting the ECI Property for PCB contamination; capping above the re-placed soil; and, placing a deed restriction on the Property.
- Replacing the soils could be inconsistent with future remedial actions, if any, that may be selected for this Property.

Finally, DTSC has indicated they do not support backfilling the soil piles into the open excavations, in part because DDT and chlordane concentrations present in the soil exceed criteria for State RCRA characteristic waste (by toxicity).

4. Applicable or Relevant and Appropriate Requirements

The following legal requirements are determined by this Action Memorandum to be Applicable or Relevant and Appropriate Requirements (ARARs) for the selected Removal Actions described in this Action Memorandum. (See 42 U.S.C Section 9621(d)(2) and 40 C.F.R. Section 300.415(j) attainment of ARARs in removal actions.) Only substantive portions of the requirements in the cited provisions below are ARARs for this action.

The excavated soil must be managed as a characteristic hazardous waste within the state of California (including at the ECI Property). Excavated soil containing 1 ppm of DDT or more qualifies as a characteristic hazardous waste under California law, 22 CCR Section 66261.24. If the soil is disposed of in the State of California, all treatment requirements under state law must be met prior to land disposal.

As discussed earlier in this Memorandum, there is sufficient information (contained in the Administrative Record for this removal action) to conclude that hazardous substances released from the former Montrose Plant Property have come to be located on the ECI Property. Consequently, the requirements of the CERCLA Offsite Rule, 42 U.S.C. Section 9621(d)(3) and implementing regulations, extend to and limit the off-property disposal of the soil piles to an Offsite Rule approved facility. Additionally, EPA is making the determination that the excavated soils must be disposed of in a Subtitle C hazardous waste landfill.

Applicable or Relevant and Appropriate Requirements

a. South Coast Air Quality Management District Requirements Applicable to the Excavation and Handling of Contaminated Soil

- SCAQMD Rule 401 -visible emissions
- SCAQMD Rule 402- nuisance dust
- SCAQMD Rule 403 -fugitive dust

b. Hazardous Waste Management - Applicable Pre-Transport Requirements ("CCR" -California Code of Regulations)

- 22 CCR Part 261 - identification of hazardous waste
- 22 CCR 66262.11 -hazardous waste determination by generator

c. Hazardous Waste Management - Applicable Transportation Requirements

- 22 CCR 66262.20-.23 HW Manifests
- 22 CCR 66262.30 HW transporter - packaging
- 22 CCR 66262.31 HW transporter - labeling
- 22 CCR 66262.32 HW transporter - marking
- 22 CCR 66262.33 HW transporter - placards
- 22 CCR 66263.16 HW transporter -container requirements
- 22 CCR 66263.23 (a)(c)(d) HW transporter – operation requirements
- 22 CCR 66263.30-.31 HW transporter - requirements re: release during transportation.

d. Applicable Hazardous Waste Storage Facility Requirements

- 22 CCR 66264.14 - Security Requirements
- 22 CCR 66264.15 (a), (b)(1-4), (c), and (d) - General Inspection
- 22 CCR 66264.50-56 – Contingency Plan and Emergency Procedures

Other Legal Requirements of Independent Applicability

The removal actions selected in this Action Memorandum may trigger additional legal requirements. These requirements are not identified as ARARs because such requirements do not meet the definitional prerequisites for ARARs as set out in CERCLA Section 121, 42 U.S.C. Section 9621(d)(2), or because such requirements are triggered by offsite activities. However, the requirements set out below may apply to portions of the selected removal action as the result of independent application of legal authorities other than Section 121(d)(2) of CERCLA.

- Provisions of Title 22 of the California Code of Regulations relating to offsite shipments of hazardous waste, including but not limited to treatment and disposal requirements and land disposal restrictions.
- Federal and State Occupations Health and Safety Requirements.
- CERCLA Section 103, 42 U.S.C. Section 9603 notification requirements and comparable provisions of California law.

5. Project Schedule

Implementation of this work is anticipated to begin one week following issuance of the Action Memorandum. Prompt implementation of this Removal Action is anticipated because the Property owner/occupant, to be named in the Order, operates a hazardous waste hauling business. However, other factors affecting the schedule may include limitations of the receiving facility, delays due to weather, and other factors. For example, significant removal of the soil piles, currently surrounding the excavations, will be necessary before the excavations can be accessed for lining and backfilling.

Table 2 - Removal Action Schedule Components	
Task	Estimated Implementation Schedule
<i>Secure Source</i>	
Surface water runoff preventative and stabilization measures	Week 1
Wind erosion measures	Week 1
<i>Soil Hauling</i>	
Soil transport and disposal arrangements	Weeks 1 - 2
Hauling of soil piles (dependent upon availability of trucks and intake capacity of receiving facility – 7 weeks are estimated based on 30 loads per week.)	Weeks 3 to 10
Contingency period for hauling	Weeks 11 to 14
<i>Backfilling of Excavations</i>	
Identification and sampling of a source of clean backfill	Weeks 1 - 4
EPA review and approval of clean fill documentation	Weeks 5 to 6
Lining of the excavations	by Week 8
Fill importing, placement and compaction (dependent upon accessibility of excavations)	Weeks 8 to 14
Contingency period for filling	Weeks 15 to 17
<i>Paving over filled excavations</i>	By Week 18

Following issuance and implementation of the Action Memorandum, a period of approximately 4 months is projected for the completion of the field component of this removal action. Anticipated scheduling components are presented below, in Table 2.

B. Estimated Costs

The total estimated cost of this action is \$1,614,000. The basis for these estimates follow.

1. Waste Volume and Mass

This cost estimate presumes a total excavated soil volume of 120 loads, or up to 3000 tons.

2. Costs

Table 3 presents an estimate of costs to EPA for conducting this removal action. Costs may be different (e.g., lower) if work is conducted by other parties.

Table 3 - Removal Action Cost Estimate	
Task	Estimated Cost
Site securing	
Surface water runoff preventative and stabilization measures	\$8000
Wind erosion measures	\$4500
Sampling and Analysis for disposal characterization	\$550,000
Air Monitoring	
Daily monitoring and PM ₁₀ evaluation	\$250,000
Soil Hauling and Disposal – Estimates based on 120 loads to US Ecology, Beatty NV (20 to 25 tons per load at \$100 per ton)	\$300,000
Backfilling of Excavations	
Identification/sampling of fill source	\$15,000
Lining of excavations	\$10,000
Fill importing, placement, compaction	\$200,000
Paving of filled excavations	\$7,500
SUB TOTAL	\$1,345,000
20% Contingency	\$270,000
TOTAL estimated for Removal Project	\$1,614,000

VI. EXPECTED CHANGE IN THE SITUATION SHOULD ACTION BE DELAYED OR NOT TAKEN

Delayed action, or no action, will increase the threat to public health and the environment. With ongoing wind and rain erosion on the covered soil piles, hazardous substances in soil would likely migrate from the soil piles and ECI Property, to both the nearby residential properties (increasing the potential for human exposure), and to the current stormwater drainage pathway (Kenwood Drain) presenting a threat to the environment.

VII. OUTSTANDING POLICY ISSUES

None identified at this time.

VIII. ENFORCEMENT

Enforcement issues are discussed in a separate memorandum, prepared by John Lyons, Assistant Regional Counsel.

IX. RECOMMENDATION


This decision document represents the selected removal action for the ECI Property soil piles and excavations, located at 20846 Normandie Avenue, Torrance California. It was developed in accordance with CERCLA as amended, and is not inconsistent with the NCP. This decision document is based on the administrative record for the removal action.

As documented in this Action Memorandum, conditions at the ECI Property, specifically the soil piles and open excavations, meet the NCP criteria for a removal action (40 C.F.R. Section 300.415(b)(2)). Approval of the proposed removal action is recommended.


The project ceiling for this removal action is estimated to be \$1,614,000, and it is expected that the removal action would be completed within six months of initiating the response action.

Action Memorandum
20846 Normandie Avenue Soil Pile Removal
Historical Stormwater Pathway – South
November 2, 2005

APPROVED:


Signature

Elizabeth Adams, Chief
Site Cleanup Branch
Superfund Division


Date

References (available in Administrative Record for Removal Action)

1. *Final Remedial Investigation Report for the Montrose Superfund Site*, Los Angeles California, May 18, 1998.
2. Action Memorandum for Kenwood Removal Action, June 2001.
3. Amended AR for Kenwood Removal Action, November 2001.
4. CH2M Hill technical Memorandum, October 2005. (for HSWP aerials)
5. Inter-office Correspondence to John L. Kallok from B. I. Bratter, Montrose Chemical Corporation of California, January 13, 1983.
6. LA County Public Works As-built construction diagrams for Project 685. Los Angeles County Flood Control District Project No. 685 Kenwood Avenue (Supplemental) Drawing Numbers 428-D4.44 to 428-D4.52 and 428-RW3.1
7. *Response to June 14 and 24, 2005 EPA 104E Letters Requesting Additional Site Investigation Information for Ecology Control Industries Property, 20846 Normandie Avenue, Torrance California*, by Haley & Aldrich, Inc. for Ecology Control Industries, July 2005.
8. *Preliminary Assessment Report, Akzo Coatings, Inc.*, (EPA ID No. CAD085941789), January 12, 1993.
9. July 29, 2005 Memorandum to Site file, from Susan Keydel/EPA, regarding the visit to 20846 Normandie Avenue, on July 19, 2005.
10. Notes from conference calls between Susan Keydel/EPA and Haley and Aldrich, May 9 2005 and June 6, 2005
11. Notes from conference call between Ron Flury/ECI, Peter Goldenring of Goldenring & Prosser, and John Lyons/ORC and Susan Keydel/RPM of EPA, June 13 2005.
12. Request for Information Letter to Mr. Ronald Flury, and his counsel, Mr. Peter Goldenring (June 13, 2005)
13. Letter to Mr. John Lyons, EPA Region 9, from Peter Goldenring, Goldenring & Prosser, June 21, 2005, with attachments.
14. Letter from Peter Goldenring to John Lyons, July 14, 2005 – incomplete 104(e) response

15. Completion Report, Removal Action, Kenwood Storm Water Drainage Pathway, Montrose Chemical Superfund Site, Los Angeles, California. Prepared by Project Resources Inc. (5 volumes). July 2002.
16. Notes from communication between Rick Brown, ECI and Susan Keydel/EPA on October 17, 2005.
17. Memorandum to Montrose Site File, from Susan Keydel, "Association of DDT found at 20846 Normandie Avenue with former Montrose Plant Property," September 12, 2005.
18. Letter from Peter Goldenring to John Lyons, July 18, 2005.
19. Letter from Peter Goldenring to John Lyons, August 30, 2005.
20. Email Communication from J. Dolegowski/CH2M Hill to S Keydel/EPA, October 27, 2005, with attachments.
21. Tech Memorandum from CH2M Hill on summary statistics for DDT in ECI data set, October 12, 2005.
22. Letter form S Keydel to R Flury on July 24, 2005.
23. *Management of Remediation Waste under RCRA*, EPA 530-F-98-026, October 1998.
24. *CERCLA Removal Action Memorandum for the Kenwood Storm Water Drainage Pathway*, dated June 8, 2001

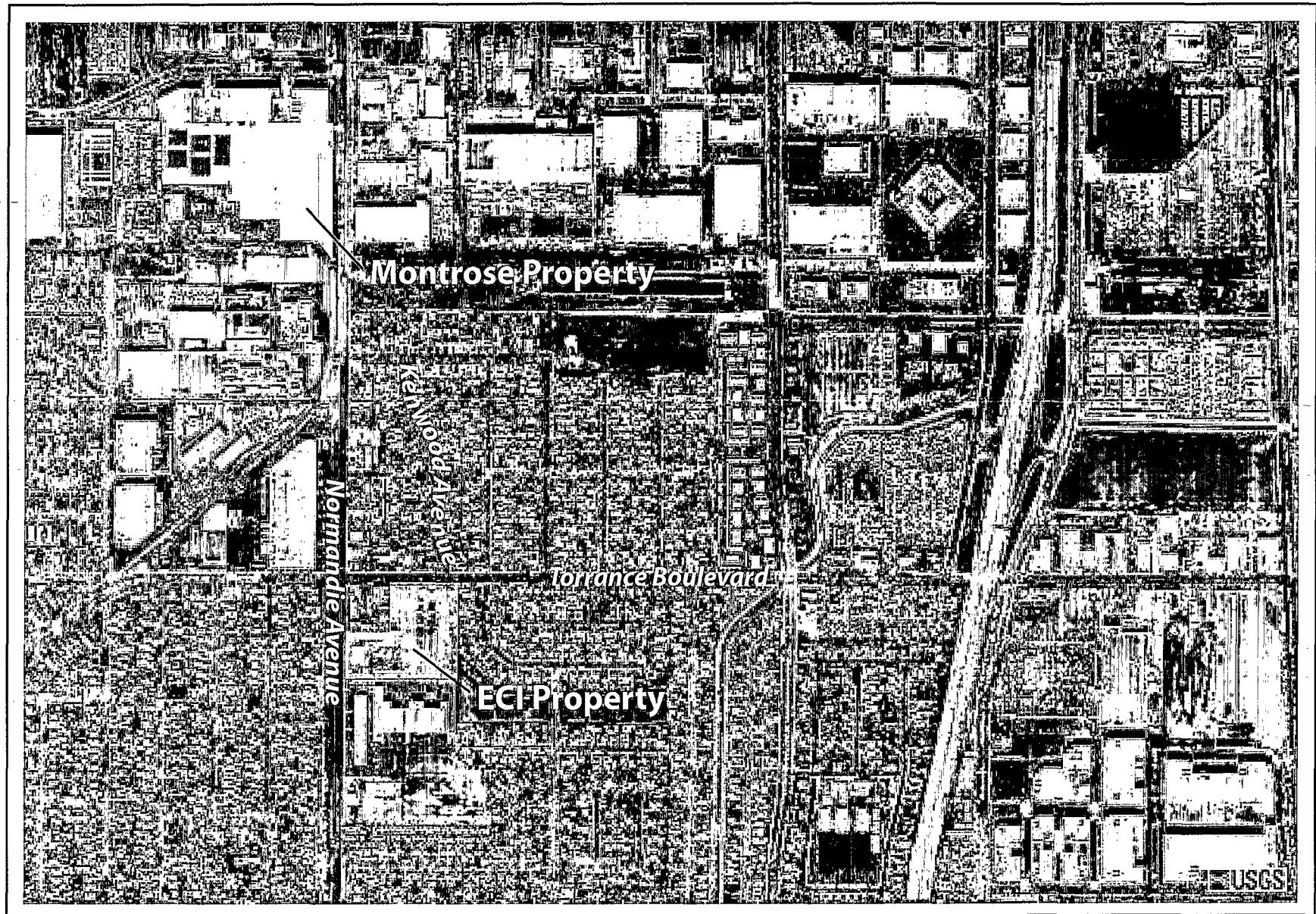
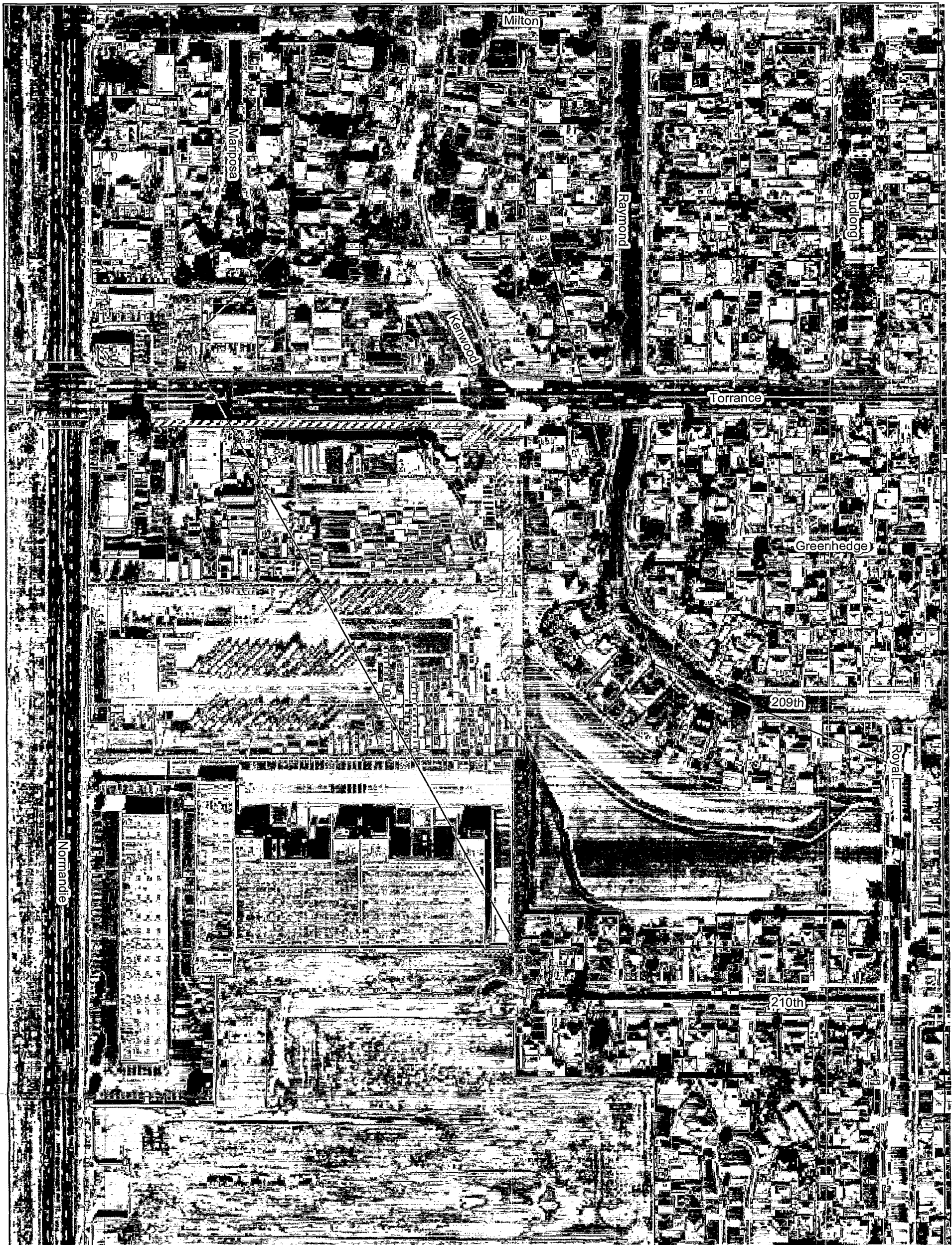


Figure 1: ECI Property Location



Legend

- Extent of 1941 Pounded Water
- Area of Focused Analysis
- Assessor Map**
- Drainage Easement
- LACFCD Easement
- Slope Easement
- Parcels
- Lot 1 of 20846 Normandie Ave
- Lot 2 of 20846 Normandie Ave

Digitized Features

- Potential Wetland/Riparian
- Dirt Road
- Ditch/Potential Wetland
- Pounded Water

Base Image:
USGS High Resolution Orthoimage
Los Angeles March 29, 2004
0.3-Meter Pixel Resolution

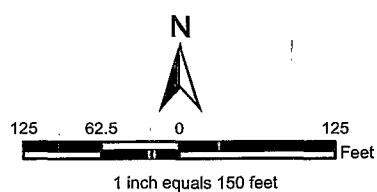
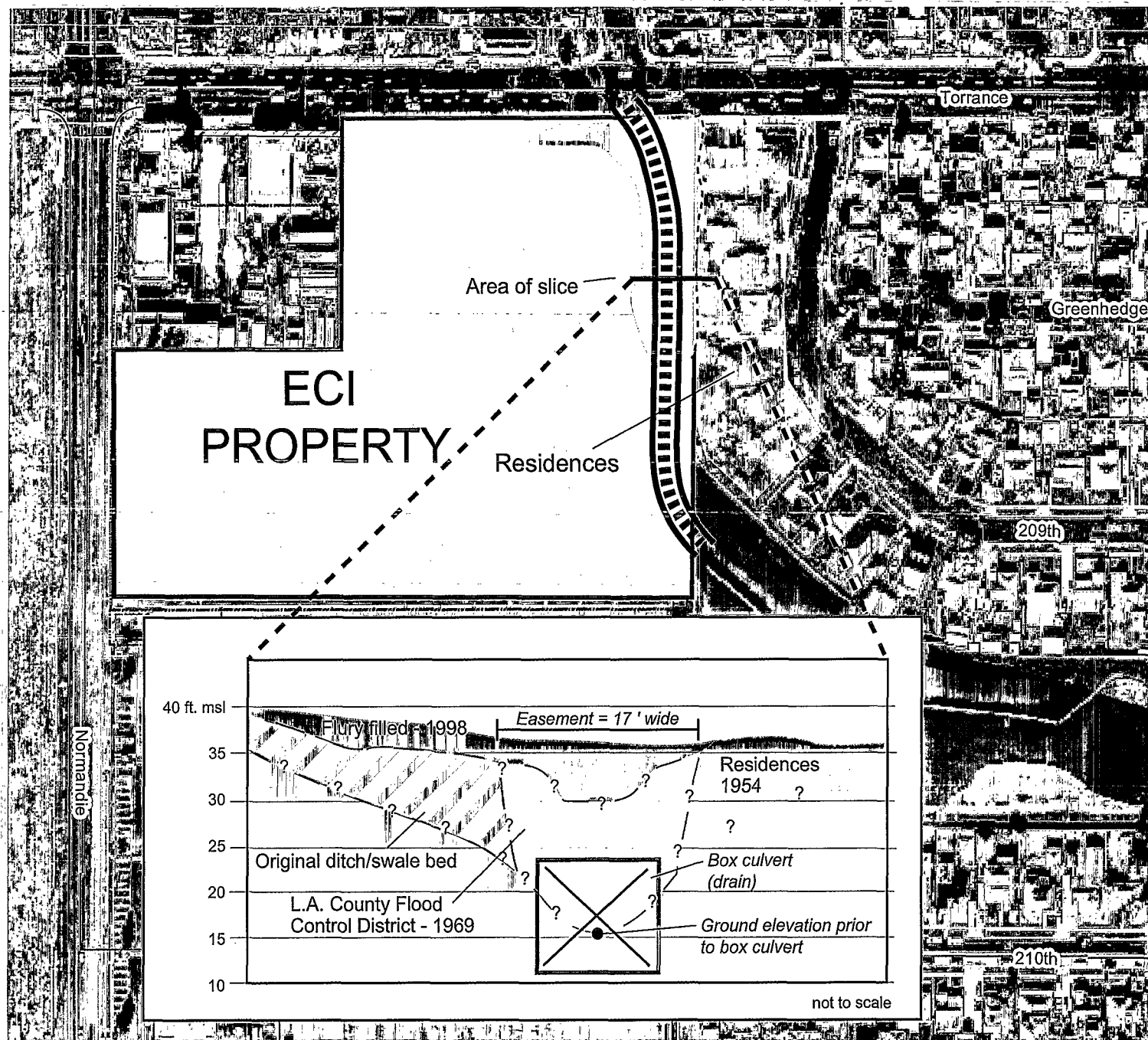


Figure 2: Extent of Historical
Stormwater Pathway
in ECI Property Area

Features Digitized From
1928 to 1965 Aerial Photographs
HISTORICAL STORMWATER PATHWAY
MONTROSE CHEMICAL SUPERFUND SITE
LOS ANGELES COUNTY, CALIFORNIA



U.S. EPA, Region 9

Figure 3: Conceptual Diagram of Soil Across Former Stormwater Drainage Pathway

MONTROSE SUPERFUND SITE
LOS ANGELES COUNTY, CALIFORNIA

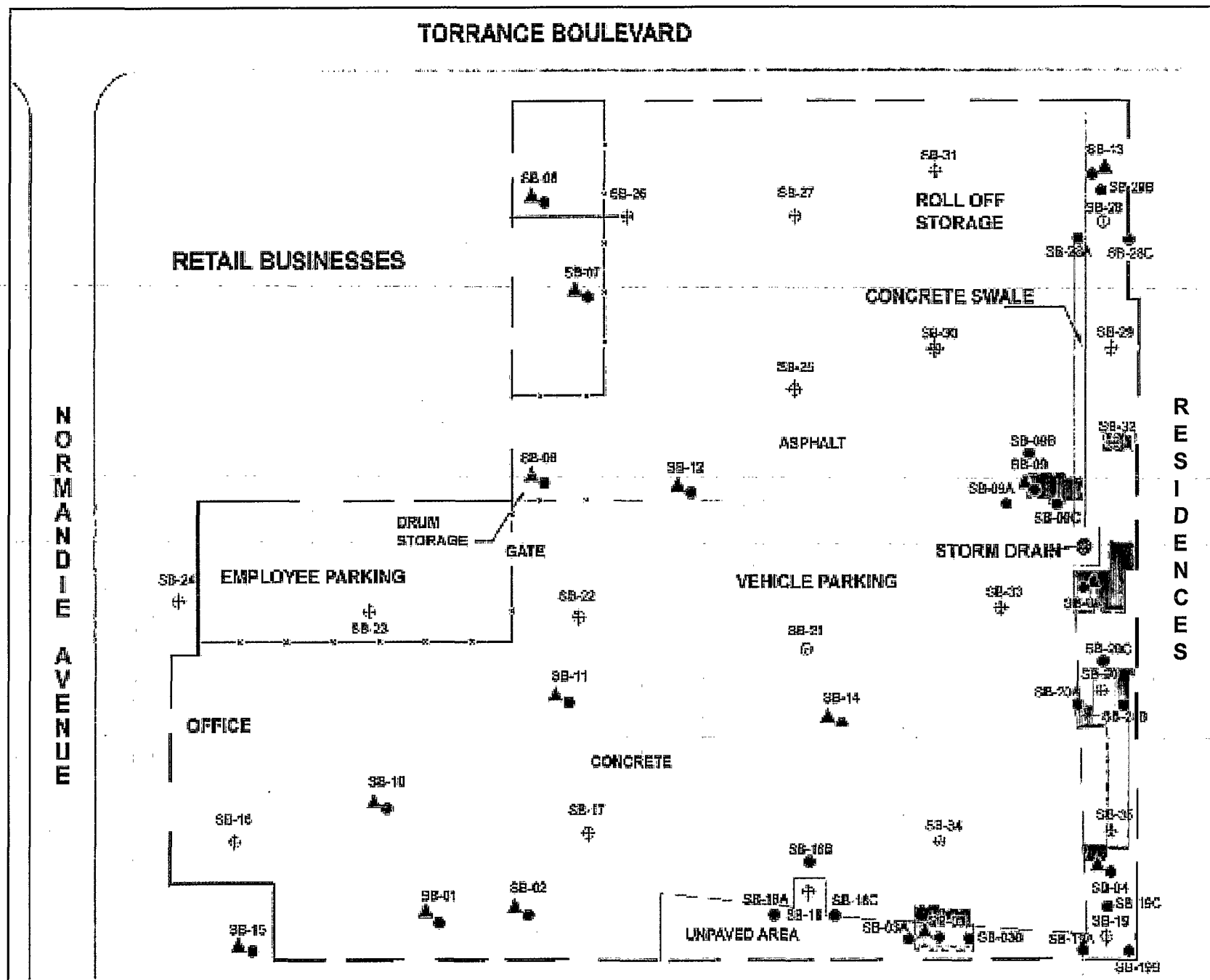


Figure 4: ECI Property Excavations